

AMERICAN BUSHCRAFT ON A BUDGET: LEARN 12 NEW SKILLS IN A TWO-DAY COURSE

SURVIVAL



GUIDE

EXCEPTIONAL PERFORMANCE

H&K'S NEW VP40

HIGH-ALTITUDE DANGER

COPING WITH THE SYMPTOMS OF ALTITUDE SICKNESS

WINTER'S DEVASTATION

LONG-TERM PREPS TO FIGHT WINTER'S WRATH

QUICK ENGAGEMENT

THE REDESIGNED STEYR SCOUT RIFLE

WILDLIFE PROTECTION

GUARD YOUR PROVISIONS AND YOUR LIFE

SUTURING 101

PROPER WOUND CLOSURE TECHNIQUES

POWER ON THE MOVE

BUSHNELL'S POWERSYNC SYSTEM SHINES

HAMMOCK HACKS

16 TIPS FOR COMFORTABLE HAMMOCK SLEEPING



GOING TO GROUND

CRITICAL WILDERNESS SKILLS

DIGITAL ISSUES AVAILABLE ON
www.engagedmediainc.com

Available on iTunes, Google Play, Amazon Kindle

VOLUME 5, ISSUE 1 • JANUARY 2016 • U.S. \$8.99
DISPLAY UNTIL: 1/5/2016



0 71486 01319 8

0 1

GEAR
GUIDES

CROSSBOWS
FOR THE
SILENT KILL



MOUNTAIN
BOOTS FOR
RUGGED LIVING



Engaged Media, Inc.

AMERICA'S PASTIME MEETS AMERICAN-MADE INGENUITY.



Professional pitcher Andrew Cashner is known to throw some nasty fastballs. But off the field, it's all about the Curve.® As a firearms enthusiast and avid outdoorsman, Cashner praises the all-new Taurus Curve for its game-changing design, reliable performance and unparalleled concealability.



First-ever LED light and laser built into frame

Snag-free design

Bore-axis sighting system for instinctual shooting

Built-in holster-free belt clip

.380 ACP, 6+1 capacity

Lightweight 10.2 ounce subcompact pistol

Includes two magazines and a trigger protector



SUGGESTED RETAIL: \$392

TAURUSUSA.COM

TAURUS UNLIMITED LIFETIME REPAIR POLICY™



curve®



MTM | SPECIAL OPS



THE MTM SPECIAL OPS LINE OF TACTICAL TIME PIECES IS
EXCLUSIVELY AVAILABLE THROUGH MTM.
TOLL FREE AT 1 800 284 9487 OUTSIDE OF USA 1 213 741 0808
1225 SOUTH GRAND AVE. LOS ANGELES, CA. 90015.

BLACK COBRA

SPECIALOPSWATCH.COM

CONTENTS

01.16

FEATURES

18 DEADLY HEIGHTS

Altitude Sickness Symptoms and Survival Strategies

Story by Nikki Grey

24 BUDGET BUSHCRAFT

How to Get More Out of Nature With Less

Story by Dwayne Unger

46 TWO SEASONS

Winter and Preparing for Winter

Story by Dana Brenner

REVIEWS

32 THE BEST OF BOTH WORLDS

Leupold's Mark AR MOD 1 1.5-4x20mm Offers Strong Value for the Price

Story by Garrett Lucas

36 A SCOUT AND HIS RIFLE

Steyr Arms Redesigns a Classic and Offers a Lower Price

Story by Terrill Hoffman

70 BUSHNELL LIGHTS THE WAY

And It Keeps That Light Burning

Story by Terrill Hoffman

94 A MORE POTENT PEOPLE'S PISTOL

H&K Steps Up the Power Level With the New VP40

Story by Garrett Lucas

LOGISTICS

56 THESE BOOTS ARE MADE FOR ESCAPING

How to Pick a Pair of Boots That Might Just Save Your Life

Story by Larry Schwartz

MEDICAL

76 SUTURING 101

What I Learned From Doctor Bones and Nurse Amy

Story by Garrett Lucas

HOW-TO

82 RIMFIRE SURVIVAL TACTICS

Optimizing the .22 Pistol for Survival

Story by Kevin Estela

102 CRITTERS AND PREDATORS

Dealing With Animals in the Mountains

Story by Larry Schwartz

110 SURVIVAL HAMMOCK HACKS

16 Tips for Manageable and Comfortable Hammock Sleeping

Story by Kevin Estela



24



32



94

AMERICAN SURVIVAL GUIDE (ISSN 2331-8937) Volume 5, Number 1 is published 12 times a year—January, February, March, April, May, June, July, August, September, October, November, December—by Engaged Media, Inc., 22840 Savi Ranch Pkwy., Suite 200, Yorba Linda, CA 92887. POSTMASTER: Send address changes to American Survival Guide c/o VSI, Inc., 905 Kent St., Liberty, MO 64068. © 2016 by Engaged Media, Inc. All rights reserved. Reproduction of any material from this issue in whole or in part is strictly prohibited. GST #R55050365RT001 Canada Post: Publications Mail Agreement #40612608. Return undeliverable Canadian addresses to: PITNEY BOWES, INC., P.O. Box 25542 London, ON N6C 6B2.



36

70



GEAR GUIDES

62
BOOTS

118
CROSSBOWS



110



DEPARTMENTS

FIRST WORDS 6
NEW PRODUCTS 8
NEWS & NOTES 14
SURVIVAL LIT 128
LAST WORDS 130



56



76

ON THE COVER:
Model: Ethan Fleitas
Model Photo: Henry Z. De Kuyper
Special thanks to Paul Hantke
Gear: Marmot Bastione, Osprey
Aether 60, Space Craft Offender
Stripe and The North Face Etip
Glove from REI
Design: Jesse Cao

NEW BEGINNINGS

Because this is our January 2016 issue, it's worthy of stopping for a moment to not only look back on the past year, but to also look forward to what's to come. Tradition dictates that part of crossing over into the coming year is to make resolutions for ourselves. Typically, those resolutions are usually declarations of our intent to become better, whether it's by being good to others, improving something about ourselves or simply learning something new.

In the context of preparedness, there's always something else we can learn, and there is, most definitely, always something more we can do. On occasion, we have to reassess our priorities to make sure we're focused on the most important areas that will help ensure our survival if something catastrophic happens. Once done, we have to follow through with our research, planning and execution for each area that needs to be addressed.

The world is different these days. It's not the same as it was a century ago—not even 50 years ago. We've always been at the mercy of Mother Nature, whether it's a hurricane hitting the ground or the ground, itself, shifting beneath our feet. Now, we have the threat of terrorism, biological hazards due to international travel, frequent mass shootings and global economic systems teetering on the brink of collapse.

While there might be specific measures to take, depending on what occurs, it always comes down to the basics: shelter, water, food, medical care, self-defense and finding a way to move forward and sustain life.

We will be here, and hopefully, we can help you find some of the answers to your questions. In that respect, if there are important topics you'd like to see us cover, contact us, and we'll try to cover the most pressing and popular responses we get. You can reach us with your suggestions or requests by e-mail at glucas@engagedmediainc.com.

We're in the same place you are—trying to learn more, do more, improve our skills and open our minds to new possibilities we haven't considered before.

Let's hit the ground running in the New Year, and let's do it together!



Garrett Lucas, Editor
glucas@engagedmediainc.com

January 2016
Volume 5 • Number 1

EDITORIAL

Doug Jeffrey Editorial Director
Garrett Lucas Editor
Amy Mclean Managing Editor
Henry Z. De Kuyper Senior Staff Photographer

DESIGN

Jesse Cao Art Director
Eric Knagg Design Director

CONTRIBUTORS

Dana Benner, Mike D'Angona, Kevin Estela, Nikki Grey, Terrill Hoffman, JD Hughes, Larry Schwartz, Tori Tellem, Dwayne Unger

ADVERTISING

Gabe Frimmel Ad Sales Director
(714) 200-1930
gfrimmel@engagedmediainc.com
Casey Clifford Senior Account Executive
(714) 200-1982
Mark Pack Senior Account Executive
(714) 200-1939
John Cabral Advertising Design
Gennifer Merriday Advertising Traffic Coordinator
Eric Gomez Advertising Traffic Coordinator

DIRECT MARKETING GROUP

John Bartulin (866) 866-5146 ext. 2746

OPERATIONS

Subroto Mallick Business Analytic Manager
Robert Short IT Manager
Harsh Srivastava Newsstand and Circulation Analyst
Shailesh Khandelwal Subscriptions Manager
Alex Mendoza Administrative Assistant
Jeno Torres Administrative Assistant
Victoria Castle Intern Program Manager
Arvind Sidhu Prepress Manager

EDITORIAL, PRODUCTION & SALES OFFICE

22840 Savi Ranch Parkway, #200, Yorba Linda, CA 92887
(714) 939-9991 • Fax: (800) 249-7761
www.americansurvivalguidemag.com
www.facebook.com/americansurvivalguidemagazine
www.facebook.com/eambybeckett

AMERICAN SURVIVAL GUIDE (ISSN 2331-8937) is published monthly in January, February, March, April, May, June, July, August, September, October, November and December by Engaged Media Inc., LLC, 22840 Savi Ranch Parkway, #200, Yorba Linda, CA 92887. Periodical postage paid at Anaheim, CA, and additional mailing offices. **POSTMASTER: SEND ADDRESS CHANGES TO AMERICAN SURVIVAL GUIDE, C/O ENGAGED MEDIA INC. VSI, INC. 905 KENT ST. LIBERTY, MO 64068.** © 2016 by Engaged Media, Inc. All rights reserved. Reproduction of any material from this issue in whole or in part is strictly prohibited. GST #855050365RT001. Canadian Post: Publications Mail Agreement PITNEY BOWES, INC., P.O. Box 25542, London, ON N6C 6B2, Canada

CUSTOMER SERVICE

Engaged Media, Inc.
22840 Savi Ranch Parkway, Ste. 200, Yorba Linda, CA 92887
Subscriptions, Address Changes, Renewals, Missing or Damaged Copies
(800) 764-6278
(239) 653-0225 Foreign Inquiries
subscriptions@engagedmediainc.com
customerservice@engagedmediainc.com
Back Issues: www.engagedmediamags.com
Books, Merchandise, Reprints
(800) 764-6278 • Foreign (239) 653-0225
Letters to Editor, New Products, or to Contribute a Story or Photo
glucas@engagedmediainc.com

SUBSCRIPTION RATES

\$1795/1 year, \$2795/2 years. Outside the U.S., add \$20.00 per year payable in U.S. funds. Single copy price is \$8.99. Please allow 6 to 8 weeks for new subscriptions to begin.

ENGAGED
MEDIA, INC.

ENGAGED MEDIA INC.

Nick Singh President
Vikas Malhotra Vice President
Celia Merriday HR and Office Management
Gus Alonzo Circulation/Marketing Director
Jason Mulrone Director of Content
Pinaki Bhattacharya Vertical Manager

This magazine is purchased by the buyer with the understanding that information presented is from various sources from which there can be no warranty or responsibility by Engaged Media Inc., as to the legality, completeness or technical accuracy.

GST #855050365RT001
Canada Post: Publications Mail Agreement #40612608
Return undeliverable Canadian addresses to:
PITNEY BOWES, INC., P.O. Box 25542, London, ON N6C 6B2, Canada



LEGENDARY DESIGN

RUGGED RELIABILITY

LIFETIME WARRANTY

AKM247-UF



SKU: 100M2003
UPC: 856867005463

\$699.95
MSRP

AKM247-C



SKU: 100M2008
UPC: 856867005081

\$649.95
MSRP

M214



SKU: 101M1010
UPC: 896187002438

\$659.95
MSRP

M215QR-7



SKU: 100M15P70R
UPC: 856867005371

\$749.95
MSRP

M215-LP



SKU: 100M2015
UPC: 856867005005

\$755.95
MSRP

AR-15A1



SKU: SPORTER0015
UPC: 896187002193

\$749.95
MSRP



Scan here to find your
favorite distributor



WWW.IOINC.US PH:321-499-3800

NEW 01.16 PRODUCTS



1

A Modern Twist for Hand Warmers

Losing patience with chemical hand warmers or pocket warmers? ThermoCELL has a new and simple solution called Heat Packs. The company offers a set of two hand/glove warmers or one large pocket warmer. Instead of relying on the typical style of chemical warmers, you can choose among three heat settings (up to 116 degrees F) and just flip on the switch for the Heat Packs to work.

Specifications

- Water-resistant
- Runs for up to six hours
- Charges in about four hours
- Battery capacity: 1,000 mAh for Hand Warmers; 3,300 mAh for Pocket Warmer

Hand warmers \$79.99 (set of 2);

Pocket warmer 69.99

www.thermacell.com

2

Aire Puma Self-Bailing Raft

If your needs include survival products related to water, check out the Aire Puma self-bailing raft. It's like an inflatable kayak (as in, narrow) meets a raft (as in, cargo space), and it can fit two to four people. It has a smooth bottom and uses a PVC-coated material for durability.

Specifications

- Length: 11 feet, 6 inches
- Weight: 89 pounds
- 10 D-rings
- Includes repair kit

\$3,279

www.nrs.com



2

3

Portable Pressurized Shower

The RinseKit attaches to a water spigot and provides 65psi water pressure. Its 2-gallon container can hold hot and cold water and can also utilize a sink if no spigot is available. (The company is currently working on the Field Fill Kit for filling with still water and making pressure with an everyday bike pump.)

Specifications

- Weight: 24 pounds when full
- Keeps full pressure for a month
- Fills in 20 seconds

\$89.99

www.rinsekit.com

4

Bluetooth Speaker and Charger

The EcoPebble Powerbank from Ecoxgear is a Bluetooth speaker that allows you to play music from any Bluetooth-enabled device. Beyond being waterproof and impact resistant, the "Powerbank" part of the name means you can charge devices. Also included is an LED flashlight.

Specifications

- 200 lumens
- Can be mounted
- 50-hour battery life
- Can charge multiple devices

About \$150

www.ecoxgear.com

5

Pop-Up Trailer

The Go Easy Adventure Trailer can do it all and travels easily. It can even be towed by a motorcycle. This trailer can transform into a four-person tent by way of its camping pod and also transports bikes or kayaks with racks. It can function as a utility trailer for storage and can even serve as a table. The front storage box is weatherproof.

Specifications

- 13 inches of ground clearance
- Holds up to five bikes/four kayaks
- Torsion axle
- Light weight: 840 pounds

Packages vary; prices start around \$2,000

www.go.sylvansport.com

CAN'T GET ENOUGH ASG?
WHEN YOU'RE NOT OFF THE
GRID, BE SURE TO FIND US ON
FACEBOOK:
[facebook.com/
americansurvivalguidemagazine](https://www.facebook.com/americansurvivalguidemagazine)
and **INSTAGRAM:**
[#americansurvivalguide](https://www.instagram.com/americansurvivalguide)



CALL TOLL FREE
800-441-8855

MAJOR
SURPLUS & SURVIVAL

THOUSANDS MORE
ITEMS ONLINE

YOUR SOURCE FOR SURVIVAL PRODUCTS



NORDIC FIRE AXE

ITEM #02-9769

Our high grade multi-tool steel head is firmly epoxied to a virtually unbreakable fiberglass handle with rubberized non-slip grip. Measures 24" overall. The head measures 9½"L x 1¼" thick x 3¼"H. Weighs 3.68 lbs. Please specify color.

3 Colors Available:
Orange, O.D., Yellow

REG. \$39.95

Now
\$29.95



Just in!
\$17.95

12" COMBAT FIXED BLADE with BUILT-IN BULLET KNIFE

ITEM #03-0219

Comes in its own 600D nylon sheath with a snap-down strap. This fixed blade knife has an 11.875" overall measure and 6.6" by 4MM thick black stainless steel blade that's partially serrated. Its Black ABS handle has a built in bullet folder to save time and space when you're in the field, plus a convenient lanyard. Blade length 6¾".

EURO MILITARY STEEL FUEL CAN

ITEM #08-3188

Heavy duty 20 liter (5 gal.) fuel can. The attached neck has a heavy duty gasket cap with no parts to lose. Fits in all military style gas can carriers. Grade 2, Issued Good condition with minor dings and slight rust.

REG. \$34.95

Now
\$19.95

Available in Black or O.D.
(sorry no color choice).

Not to be sold in the following States: CA, CT, DC, DE, MA, MD, ME, NH, NJ, NY, PA, RI, VA, VT and City of Dallas, TX



HEAVY BULKY ITEM



REG. \$109.95

Now
\$79.95

GREAT NORTHERN COMPACT CAMP STOVE

19" tall with legs

ITEM #16-2365

Super strong rolled steel construction. Sets up in minutes. Easy carry handle folds flat to become a stove cook top. Rotate cook top outward to hang wet socks and gloves. Burns wood, compressed logs, charcoal or any convenient solid combustible. Interlocking fuel pipe sections measure 11¾"L x 2¼" Dia. with stove pipe cap. Removable legs and dual side cook tubes. Measures 13¾"L x 8" Dia.



FRENCH STORM LIGHT

ITEM #08-1091

Provides approximately twenty hours of burn time on a fully-filled tank. Runs on kerosene or other cool-burning lamp fuel. Made with crack-resistant glass. Includes a thermal heat-resistant borosilicate glass globe, wick, tank and a self-ventilating hood. Measures 12"L x 5½"W x 5½"H.

REG. \$24.95

Just in!
\$17.95



Just in!
\$24.95

FRENCH WOOL ARMY BLANKET

ITEM #08-6958

Genuine surplus, French Military heavyweight orange wool blanket. A warm blanket with a thick insulating pile; equally suited to home or camp use. In Excellent, clean condition, showing little or no signs of use. Measures 90"L x 60"W.

AK-47 MAG SHOULDER POUCH

ITEM #08-8371

Very rare cotton canvas mag pouches with flap cover, 5 divided 30 round magazine compartments, 2 covered side pockets. New Unissued condition. Magazines not included.

Measures:
7"L x 8"W x 3"H.

Single
\$12.95

3 For
\$30.00



FRENCH 20 LITER (5 GAL) WATER CONTAINER

ITEM #08-1086

Holds 5 gallons (20 liters) of water. The convenient molded carry handle provides easy transport. Measures 13 1/2"L x 18"W x 7"H size, weighs less than five pounds (empty).

REG. \$19.95

Now
\$16.95



U. S. MILITARY SNOWSHOES WITH BINDINGS

ITEM #08-0780

Current military issue, in Brand New Condition with NEW nylon bindings. Made of a magnesium alloy for ultimate lightweight durability. All joints are welded, and the frame is completely coated in white urethane. Each shoe weighs 2.2 lbs, and is 45" in length.



REG. \$89.95

Now
\$29.95

CALL TOLL FREE 1-800-441-8855

MAJOR
SURPLUS & SURVIVAL

ORDER ONLINE www.MajorSurplus.com

ORDER ONLINE
MajorSurplus.com



**AMERICA'S
PREPAREDNESS
SUPPLIER**

FULL SERVICE PREPAREDNESS WAREHOUSE

VOODOO FULL MEAL MRE DOUBLE ENTREE BONUS PACK

**NEW &
IMPROVED!**



Item #09-9623

**12 MEALS PER CASE. 2 ENTREES
& 2 SIDES IN EVERY MEAL.**

**GUARANTEED
BEST
MRE VALUE**

Every Meal Includes:

2	Real Meat 8oz. Main Dish Entrees: Assorted Flavors per Case
2	Side Dish (5.5 oz.)
2	Two Pack of Crackers (4 Total)
1	Cookie Pack
1	Pound Cake or Brownie
1	Pack of Tortillas
1	MRE Heater
1	Water Pouch (4.3 oz.)
2	Tapatio Hot Sauce Packets
4	Peanut Butter Spread
Deluxe Accessory Pack:	
1	Matches, Spoon, Drink Powder, Coffee, Sugar, Salt, Pepper, Moist Towellete

DOUBLE THE CALORIE COUNT

Best MRE Value Guaranteed. Wide Variety of Meals.

DESIGNED BY AND FOR U.S. NAVY SEALS WHO NEEDED A HIGH CALORIE MEAL PACK.

**Super
Deal!**
\$99.95



REG. \$29.95

**Now
\$12.95**

EMERGENCY GARDEN SEEDS

ITEM #09-0057

The best survival food supply is one that you grow yourself! All seeds are heirloom non-hybrid. Enough seeds to plant a basketball court size garden packed in a #10 can. 25 packages of garden seeds. Instructions are included.

SEED PACKS INCLUDED

- 1 Beets
- 1 Cabbage
- 1 Carrots
- 1 Cucumbers
- 1 Lettuce
- 1 Onion
- 1 Swiss Chard
- 1 Butternut Squash
- 1 Turnips
- 1 Radish
- 1 Zucchini
- 1 Tomatoes
- 1 Peppers
- 4 Peas
- 4 Corn
- 4 Green Beans



PREVAL EMERGENCY SURVIVAL KIT

ITEM #11-0038

Be prepared for any disaster with food, water, shelter, light and heat. All packed in our easy to find, easy to carry, Orange and Grey shoulder bag.

Contents:

- 1 Information Sheet
- 1 3600 Calorie
3-Day Food Bar
- 10 Snack Items
- 6 4oz Pouches of
Drinking Water
- 1 1 Qt Canteen
- 1 Sierra Cup
- 1 Tube Tent
- 1 Emergency Space Blanket
- 1 12 Hour Light Sticks
- 1 50 Hour Candle
- 1 Box Waterproof Matches
- 2 Hand Warmers
- 1 13 Function Pocket Knife
- 1 Minor Medical First Aid Kit

**Five Year
Shelf Life**

REG. \$69.95

**Now
\$54.95**



VISIT OUR STORE: 435 W. Alondra Blvd. Gardena, CA 90248



NEW 01.16 PRODUCTS



6

Outdoor Backpack

Eagle Creek's Outdoor Gear line of luggage is all about function in the rough. The XTA backpack has a breathable, moisture-wicking back panel, sternum strap buckle with an integrated safety whistle, and two-way lockable zippers. Additionally, the backpack features a top grab handle, compression straps, pen slot, document pocket, slip pocket and side pockets.

Specifications

- Capacity: 6 gallons
- Weight: 1.3 pounds
- Reflective accents

Around \$150

www.eaglecreek.com

7

Hydration Pack

The Tempo 5 from Gregory utilizes a Hydrapak Shape-Shift reservoir and Wraaptor single-pull stabilizing system. It has zippered compartments and pockets, including one that is stretch mesh with an easy-pull grab tab. A dedicated trekking Z-pole pocket and an internal, water-resistant security pocket are also included. Even the shoulder harness is useful—it features an energy gel flask holder and small accessory pocket.

Specifications

- Weight: 12 ounces
- Volume: 5 liters
- Triple-loop hydration hose routing

\$115

www.gregorypacks.com



CAN'T GET ENOUGH ASG?
WHEN YOU'RE NOT OFF THE
GRID, BE SURE TO FIND US ON
FACEBOOK:
[facebook.com/
americansurvivalguidemagazine](https://facebook.com/americansurvivalguidemagazine)
and **INSTAGRAM:**
[#americansurvivalguide](https://instagram.com/americansurvivalguide)

8

Use Your Phone Without Service

In this day and age, our worst nightmare seems to be not being able to use our phones. Enter Gotenna, a device that enables phone use for sending and receiving messages and sharing your GPS location—even when there's no service. The company calls it an "off-grid communication tool." Basically, it allows you to create your own network.

Specifications

- Sends long-range VHF radio waves
- Up to 1 mile range in urban areas
- 1 to 4 mile range outdoors
- Rechargeable lithium polymer battery

\$149.99 for two-pack

www.gotenna.com



9

Titan Rod Vault Fishing Rod Carrier

The Titan Rod Vault is a roof "vault" that locks onto your roof rack. It allows you to store up to three completely rigged rods and reels. And, it won't interfere with other roof rack attachments. The Titan Rod Vault is weather- and rust-proof, aerodynamic and made from aluminum.

Specifications

- Accepts rods up to 10 feet long
- Single- and multi-vault systems
- Can be customized with vinyl wrap
- Easy for one person to install

Starts at \$249

www.titanrodvault.com

10

Light My Fire Tinder on a Rope

Need to start a fire, even in the rain? Check out Light My Fire's Tinder-on-a-Rope, a fire-starter made from cultivated pine. Thanks to its 80 percent resin content, the tinder is easy to light, including when wet. Scrape what you need, and it will burn with a hot flame.

Specifications

- Made from Montezuma pine wood
- Weight: 1.5 to 2.5 ounces
- Length: about 6 inches

\$6

www.lightmyfire.com

11

Genesis Stove System

The Genesis Stove System from Jetboil might make you pause because of the word, "system." Sounds like a lot of stuff to have on hand, but know this: It's actually lighter and smaller than the norm. There are two burners, each of which produces 10,000 BTU, and all of it stores in a carrying case.

Specifications

- 5-liter pot
- Windscreen
- Propane hookup

\$350

www.jetboil.com

12

Amazing Herbal Salve

It goes without saying: Things happen outdoors. You scrape against a bush, slip on a rock, get stung or bitten, get a sunburn, need a moisturizer ... the list goes on. Check out Ora's Amazing Herbal Salve. This multipurpose salve is free of all the perfume-y stuff and focuses on what matters most for treating what ails you. It has antimicrobial essential oils and acts as a first aid ointment.

Specifications

- Comes in 1- to 4-ounce jars
- Contains rosemary, cedar leaf and tea tree oils without parabens, petroleum or lanolin

Starts at \$11.99

www.orasamazingherbal.com

ADD

9



10



11

12





This Might Be the Future of Tent Shelters

Architect/designer/artist Abeer Seikaly has created what might be the innovation the future needs. Her concept, “Weaving a Home,” is about utilizing tent shelters for instant shelters that are woven from a structural fabric capable of expanding or folding up to be on the go in areas of disaster. The fabric inside could even become storage space. Other bonuses? Solar energy for heat and electricity and a built-in water storage tank, such as for collecting rain.

“



What Is JerseyNet?

New Jersey just stepped it up in the public safety arena. JerseyNet makes sure first responders have a dedicated, secure network for sharing real-time video, crime information and incident scene-mapping. It will also allow personnel to communicate nationwide. The project has federal grant funding.

Preparedness is the shared responsibility of our entire nation. Preparing individuals, families, components and installations for disasters and emergencies—from flooding to an active shooter—ensures the strength of our workforce and our ability to continue to safeguard U.S. security.”

—DEPUTY DEFENSE SECRETARY BOB WORK
(VIA A DEPARTMENT OF DEFENSE MEMO)



California Sets up Cybersecurity Center

California's Office of Emergency Services has created the California Cybersecurity Integration Center (Cal-CSIC), which will be all about strengthening the state's cybersecurity strategy and staying atop potential cyber attacks. It will work directly with the California State Threat Assessment System and the Department of Homeland Security.



Firefighters More Likely to Develop Cancer than You

The line of duty for a firefighter means exposure to cancer-causing agents, and volunteer firefighters have even less protection when in the firefight. As a result, the Firemen's Association of the State of New York is trying to win enhanced insurance coverage for volunteers who develop work-related cancer. There are 92,000 volunteers statewide. "The more I looked into it, the more I realized that to have this incongruity between paid (firefighters) receiving certain benefits, whereas volunteers would not, just didn't make sense," explained Senator Michael Nozzolio, a sponsor of the bill—which has been pitched every year since 2011 but never gets beyond the Local Governments Committee.

The Beetle That Makes Fires Worse

In California, drought and fires are ongoing. The bark beetle is not helping matters any. Trees can normally fight off this beetle because of their sticky resin. A dried-up tree can't make the protective resin and consequently invites a beetle infestation.

"It's definitely the worst I've ever seen," said Tom Smith, park pest management specialist for the Central and Southern Sierra Region of the California Department of Forestry and Fire Protection. In a *Los Angeles Times* interview, he noted that the bugs can quickly take a tree from green to brown, even in only three or four weeks. (Photo: USDA Forest Service)



Emergency Planning App

Know Your Plan is a free app for iPhone and iPad that allows you to plan ahead to protect you, your family, house, pets, friends and anything else that matters. There are preloaded checklists, but you can also make your own. The app allows you to set due dates, put notes in with your tasks, share said checklists and chart the progress. It's from the Insurance Information Institute.



New Zealand Gets Survival Prep and Disaster Tool

To help New Zealanders stay safe in a disaster situation, the New Zealand Red Cross has launched the Hazard App, which will put out warnings and alerts based on a user's location. Some disaster guides and information are preloaded, so users can read what to do, even without Internet access or cell reception. It also allows for "I'm safe" messages to be sent to family and social media.

NEWS & NOTES 01.16



Army Hummer Replacement: JLTV

OSHKOSH WON THE \$6.75 BILLION CONTRACT to build 55,000 joint light tactical vehicles (JLTV) to replace Humvees and other large-sized military trucks. The vehicles will be built for the Army and Marines Corps. The JLTV will likely have a General Motors Duramax diesel engine, which is already used in its heavy-duty pickups.



Google Improving Public Alerts

GOOGLE HAS MADE improvements to its weather forecasts and public alerts within Google Search. A Web search for a particular storm or tornado may now show a map of your locale in relation to the event. Features include forecasts with responder arrival times and instructions from FEMA and ready.gov.

“You know how the game of rumor goes. A student will [send a Tweet, text or other message] about guns being on campus when there are no guns on campus. We want to start pushing the right information out.”

—PASCO COUNTY SUPERINTENDENT KURT BROWNING TO THE TAMPA TRIBUNE REGARDING THE SCHOOL DISTRICT PARTNERING WITH THE SHERIFF'S OFFICIALS TO BEGIN DISPENSING CORRECT INFORMATION FAST AND ACCURATELY OVER FACEBOOK, TWITTER, INSTAGRAM AND OTHER INTERNET OUTLETS.



Secret Service Has New Website

THE SECRET SERVICE has given its website a facelift as a way to give the public better information about its missions and activities. There's also an app to do the same thing. Get announcements, safety alerts, field office contact information and other resources by heading to www.secretservice.gov. This free app is available through the Apple store.

DARKNESS

IS COMING



Fire, flood, hurricane, tornado, earthquake, terrorism, nuclear/biological/chemical, destruction, panic. These disasters present lethal challenges in daylight. They are compounded by darkness. Are you ready? TNVC is the only place to obtain all the necessary low light and no light gear to not only survive, but endure and prevail when disaster strikes. Don't be caught in the dark!

NIGHT VISION THERMAL LASERS LIGHTS HELMETS MOUNTS



WWW.TNVC.COM
© Copyright 2014, TNVC, All Rights Reserved



01.16

DEADLY

ALTITUDE SICKNESS SYMPTOMS AND SURVIVAL STRATEGIES By Nikki Grey

Imagine trekking up a mountain, experiencing the beauty and wonder of nature, and the exhilaration that comes with climbing it. It takes months of preparation and training for your mind and body to be able to handle such a feat, and you're doing it—until you feel a headache coming on, followed by nausea.

Already exhausted, now, suddenly, you're confused. You feel sick, almost drunk. What do you do?

According to *American Family Physician*, a clinical journal of the American Academy of Family Physicians, acute mountain sickness (AMS) is common in people traveling to altitudes above 8,000 feet and tends to hit around 25 percent of travelers to Colorado ski areas, 50 percent of those visiting the Himalayas and nearly 85 percent of people flying directly to the Mount Everest area.



HEIGHTS

**"ALREADY EXHAUSTED,
NOW, SUDDENLY, YOU'RE
CONFUSED. YOU FEEL
SICK, ALMOST DRUNK.
WHAT DO YOU DO?"**

A SPECTRUM OF SEVERITY

Also referred to as “mountain sickness,” altitude illness happens when a person’s body doesn’t have enough time to adapt to the lower air pressure and oxygen of a higher altitude. The Cleveland Clinic, a nonprofit academic medical center, defines this sickness as “a group of general symptoms that are brought on by climbing or walking to a higher and higher altitude (elevation) too quickly.”

Altitude sickness exists on a spectrum of severity, says Dr. Humberto Choi, who specializes in pulmonary medicine and critical care for the Cleveland Clinic.

“The mild symptoms can be easily confused with being drunk or feeling a viral illness, because you just have a headache and feel very tired; but it is actually the altitude,” he explains.

According to the clinic’s website, the symptoms (which can also include dizziness, loss of appetite and sleep problems) tend to start within 12 to 24 hours of arriving at a high altitude and lessen within a couple of days as the person gets used to it.

“When they have mild to moderate (symptoms), most, if not all, will recover just fine,” Dr. Choi says, “but they do have to stop their trip, slow down or descend. Descent ... is recommended, especially if they aren’t getting better.”



PHOTO BY IVAN BLAND

When symptoms of altitude sickness are at the moderate stage, the person experiences shortness of breath, mobility problems and weakness. The group should move the afflicted individual to a lower elevation to recover.

PHOTO BY ANDREW PEACOCK/GETTY IMAGES • OXYGEN VENTILATOR IMAGE BY THINKSTOCK



**“SEVERE ALTITUDE SICKNESS
CAN WORSEN TO A COMA AND
BECOME DEADLY ...”**

When symptoms intensify to moderate altitude sickness and include weakness and shortness of breath, people won't be relieved by over-the-counter medicines and could deteriorate over time. The person suffering might have difficulty walking, loss of coordination, severe headache and vomiting, and tightness or congestion in the chest.

Severe altitude sickness, according to Cleveland Clinic's website, comes with symptoms that include "shortness of breath at rest, inability to walk, confusion and fluid buildup in the lungs and/or brain. Other symptoms may include a cough and gray, pale or bluish skin tone."

"Severe altitude sickness can worsen to a coma and become deadly. Descent and treatment

should begin immediately," says Dr. Choi.

Nevertheless, according to *American Family Physician*, mild cases of altitude sickness are much more common than the more serious illnesses of high-altitude cerebral and pulmonary edema.

A CASE IN POINT

When Kathy Burt started climbing Mount Kilimanjaro in September 2014, she knew altitude sickness was a risk, because she had felt ill while climbing a volcano in the past. She and her adult daughter, Amy Logan, chose the nine-day route for climbing Kilimanjaro, in part because they thought it would make it easier to acclimate to the altitude.

The group, led by African Walking Company guides and provided by travel organizer Peak Planet, hiked eight hours a day in a single-file line during the nine-day trip.



01.16

Given training on safety by climb-organizing program Peak Planet, Burt and Logan knew the dangers of altitude illness. “We had lectures about altitude sickness, and the recurring theme was ‘it’s not worth your life,’” Burt says.

The two women took Diamox, a prescription altitude illness medication, as soon as they started the climb. After making it to base camp, located at an altitude of several thousand feet, the women and their group were briefed by their guides about what to expect the next day. Then, they ate dinner and went to sleep early.

“When I woke up, I knew I had a problem,” Burt recalls. “I was very nauseated and kind of light headed.”

“IT’S NOT ONLY ... ABOUT THE ALTITUDE BUT ALSO HOW FAST YOU GET TO THAT ALTITUDE.”

Although Burt considered turning back, she thought she should at least try to push on, so she got dressed and went to the food tent (although she had no appetite). About 15 minutes after she started climbing with the group, however, Burt found it extremely difficult to pull herself up.

“There was one point on a rock face when I remember putting my foot on a rock, trying to pull myself up and feeling like I was absolutely exhausted,” she says. “My whole body was heavy, and I literally had no strength. I could barely hold myself up to a 3-foot reach, so I sat down on the rock face.”

‘BRAIN FOG’

In addition to extreme fatigue and nausea, Burt also experienced dizziness and a “brain fog,” she says.

The lead guide came to check on Burt. She remembers him looking into her eyes with a flashlight and asking her what her name was.

“I couldn’t come up with my name,” she says.

The first symptoms to appear when altitude sickness begins are headaches and fatigue. Even these minor symptoms are enough to take someone out of action and should be a warning sign to watch for progressing symptoms.



PHOTO BY ANDREW PEACOCK / GETTY IMAGES

The guide reminded Burt that her life was more important than reaching the summit.

"I knew I couldn't make it," she says. So Burt began the descent.

"About halfway down to the next camp, I suddenly felt human again," Burt says. "I felt strong and healthy; I was able to have conversations and laugh. I was about 2,000 feet down. So, from around 14,000 to 12,000 feet, by the time I got to the next camp, I felt alive again."

Once Logan realized her mother had to turn back, she became worried. "I started to feel nauseated," she says. "I think it was just totally mental fear, and I was exhausted, too. I was freezing."

She pushed on, knowing she had hours to go, but about 10 minutes later, Logan felt overwhelmed and nauseated. When Logan tried to take her next step, she fell down. She was already behind the rest of the group. Her guide flashed a light into her eyes and questioned her—similarly to how her mother had been questioned—but he determined she could continue.

"I just relied heavily on the guides. They told me I had the option, and I trusted them fully. If I weren't with them, I would have gone down," she says.

Logan eventually made it to the top. And, despite the trip not going as planned, Burt says it was an amazing experience.

"I think you cannot overestimate the importance of having professionals with you in this kind of adventure," she says. "To have a guide with us who was knowledgeable about the mountain and altitude sickness, calorie intake, nutrition, water and hydrating was important. I was able to trust my guide. I really believe that when he made that call for me, he did save my life."

ADVICE FROM A CLIMB SPECIALIST

William Parker, Kilimanjaro climb specialist for Peak Planet, explains a few things climbers can do to acclimate to the altitude and prevent the sickness.

"Being hydrated and well fed is very important," he says, noting that climbers should drink 4 or 5 liters per day, as well as eat—even when they aren't hungry. "Because everyone acclimatizes at a different rate, guides deliberately set a very slow pace so that all climbers will have time to adapt to the thin air. Our guides also lead acclimatization hikes, taking climbers to higher elevations during the day and sleeping at a lower elevation at night. This approach, called 'climb high, sleep low,' is known to help adaptation."

Acute Mountain Sickness Symptoms by Severity Level

MILD

- ✓ headache
- ✓ fatigue

MODERATE

- ✓ weakness
- ✓ shortness of breath
- ✓ mobility problems
- ✓ severe headaches
- ✓ vomiting

SEVERE

- ✓ shortness of breath at rest
- ✓ loss of coordination
- ✓ inability to walk
- ✓ confusion
- ✓ fluid buildup in lungs or brain
- ✓ cough
- ✓ bluish skin color
- ✓ can worsen to coma

When deciding whether a climber should head down because of acute mountain sickness, Parker says guides look for the common symptoms, which include headache, light-headedness, fatigue, sleeplessness, loss of appetite and nausea.

"But they also look for changes in a climber's behavior, such as food and water intake, walking pace, gait, balance, manner of speaking and energy level. It is pretty apparent when someone is suffering from altitude sickness, because they will have symptoms and show a change in behavior."

As Burt mentioned, deciding when a climber should turn back could be the difference between life and death.

"Our guides will assess the situation by evaluating the condition of the climber, the rate of deterioration and the current and future elevations," Parker says. "If the guides determine that the climber's condition will likely migrate into moderate or severe AMS, they will bring the climber down. Client safety is our number-one priority."

PREVENTION

When climbers are at a high altitude on a mountain and are stuck because of the weather or another reason, rescue workers might bring oxygen or portable hyperbaric chambers to treat mountain sickness. But you shouldn't count on that.

"Ascent is one of the major risk factors so, if you can, slow down and let your body get adjusted and adapted to a lower pressure of oxygen," Dr. Choi advises. "The other thing they have to keep in mind is keeping well hydrated and avoiding alcohol. Very intense extreme exertion can also cause symptoms, but one major thing is that if they know they have had problems with altitude in the past, they should probably see a doctor, because there are ways to prevent that with some medications."

Choi also warns that people who live near sea level should note that they might be at risk when they travel to higher-altitude destinations, because their bodies aren't used to it.

"It's not only ... about the altitude but also how fast you get to that altitude. That's probably the major contributor to altitude sickness," he says, pointing out that this can also happen to people who are flying or are traveling by car.

"If you know you've had a problem in the past, you probably will again," Choi adds. "Planning a slow ascent is probably the best advice, because this is something you can control." **ASB**

**“IT IS A GIVEN
THAT THE BEST
RESOURCES FOR
LEARNING THESE
SKILLS HAVE
ALWAYS BEEN
PERSONAL AND
PROFESSIONAL
GUIDANCE.”**



01.16

BUDGET BUSHCRAFT

GET MORE OUT OF NATURE WITH LESS

By Dwayne Unger

THE ART OF BUSHCRAFT IS KNOWING HOW TO DO MORE WITH LESS. IT'S ABOUT MORE RELIANCE ON NATURAL MATERIALS AND LESS ABOUT MANMADE GEAR. It is more about thinking outside the box and less about conventional methods. And, finally, it is more about self-reliance and less about relying on others.

By "others," I refer to people, Internet and print articles, and online videos and TV shows. Don't misunderstand me; there's a lot of good information available that demonstrates correct techniques. However, without any filters on what can be uploaded, there are many bad skills taught that could create a lot of frustration and failure, seriously injure you—or worse.

You have undoubtedly watched videos and have seen how "easy" it is to start a friction fire, tie a variety of knots, build an emergency shelter, construct traps and snares, and start a fire using a ferro rod and fuzz sticks. Have you had success without being shown the *proper* ways to do these? Is our reliance on these artificial sources about convenience, or is it because so many available courses are so expensive and lengthy?

It is a given that the best resources for learning these skills have always been personal and professional guidance.



BUDGET BUSHCRAFT WEEKENDS

Kevin Estela, of Estela Wilderness Education, LLC, developed a course designed for the teaching basic bushcraft skills through short, focused, weekend-long courses—all for under \$100! He calls these “budget bushcraft” courses. Don’t let the name fool you—these courses are all about getting more with less; that is, more education in less time and with less money.

Budget bushcraft courses take place at various locales, mostly in the Northeast, and teach the proper way to utilize the skills needed to survive and thrive in the outdoors in a manner that’s both educational and fun. Unlike other survival instructors, Estela, himself, is a full-time school teacher whose training in classroom instruction provides him with the ability to conduct these courses in an effective and cogent manner. It’s this mixture that makes it natural for him to teach the skills in a way that’s easy to understand and with the patience that many others might not have.

Budget bushcraft courses are open to people of all ages and abilities. Estela makes it clear to the students that no one will be an expert after a weekend course. It’s all about “progress, not perfection.” Each course agenda is carefully thought out and tailored to the students’ abilities and skills. If the class is mostly beginners, he covers more of the basics. If the

class is more advanced, he makes appropriate adjustments to the curriculum.

Estela advocates using traditional materials and methods, but using more modern materials to increase one’s comfort during the weekend is not discouraged. There are a few necessities everyone should bring to the weekend course: a good fixed-blade knife, tarp, metal pot with bail, paracord, saw and food. (Kevin provides a comprehensive packing list prior to the course.)

I have attended several of Estela’s courses, and while some information overlaps, each time I attend is a unique experience, and I always learn something new. A unique trait of his teaching style is that he constantly challenges the repeat students. For example, if he is training the class in basic knot techniques, he might challenge a repeat student to learn several new knots, along with their applications.





***“ ... EACH TIME I
ATTEND IS A UNIQUE
EXPERIENCE, AND
I ALWAYS LEARN
SOMETHING NEW.”***

(opposite, left) Kevin Estela shows the students the hammer grip, which is a very strong grip used for many purposes in bushcrafting.

(opposite, right) The host of the weekend's budget bushcraft class, Scott Gossman, of Gossman Knives, addresses the class and demonstrates the many uses of his D2 sharpening steel.

(top) Estela shows the class some edible wild berries. Proper identification is very important before consuming any wild edible. Professional instructors are essential when learning this skill.

(right) With only a few store-bought items and the know-how, you can make a bucksaw ready to process a lot of firewood or help with other activities, such as shelter-building.





(above, left) Smoke billowing through the hole punched in the lid indicates that the cotton inside is starting to become char cloth.

(above, right) Estela shows what char cloth should look like.

(left) Estela demonstrates a good technique for making long curls with a fuzz stick—an invaluable technique.

(below) Estela lights a jute twine tinder bundle into flame using char cloth.



crucial. He covers the hammer grip, saber grip, modified saber grip and a few reverse grips. During this instruction, he explains when each grip should be used.

Afterward, we quickly got into “try sticks.” These are sticks on which you make a variety of cuts, notches, reductions and hooks to practice your knife skills. While working on these, you find out quickly whether your knife has a good cutting edge. Each of these cuts has a useful application for the woodsman. Estela is careful to explain each.

After practicing on the try sticks, we put some of those cuts and notches to use by making a bucksaw using available natural materials, along with a small handful of nuts, bolts and a saw blade.

DAY 1

KNIVES, TRY STICKS AND FIRE-MAKING 101

Many attendees drive several hours to experience Estela's budget bushcraft courses. A lot of them have been to a budget bushcraft weekend before, but this time, they might have brought along someone new. Most students make the drive in on Friday night to set up their camps, get campfires going and get to know everyone.

On the first morning, everyone gets up early, eager to get things started for a jam-packed schedule. Estela starts the day with knife grips and knife safety. Because knives are the primary tools in the woods, these skills are





(left) Sometimes, all you need is a simple stick to hold the tension on your mug's handle to suspend it over the fire.

(left, bottom) A close-up of two of the many cuts on a try stick. Try sticks are a great way to work on your knife-handling and cutting skills. Each unique cut made into a try stick has a purpose in the woods.

(below) EWE Associate Lieutenant Mike Lychock shows a variation on using three sticks to safely hang a pot over a fire.





Students were shown how to search for, harvest, prepare and make reverse-wrap cordage from some local tulip poplar.

“THE ART OF BUSHCRAFT IS KNOWING HOW TO DO MORE WITH LESS.”



This is the end product of producing birch bark oil, which has many uses, including preventing rust on knives.

Fire-making skills followed the bucksaw construction, and we were challenged with ferro rods, along with flint and steel. We were then shown a variety of natural and manmade tinder and how to properly make fuzz sticks. Char cloth was provided for the class for the flint and steel, but it wasn't long before we were all taught to make our own.

While the cloth was charring, we gathered local birch bark and proceeded to make birch bark oil. (It's nice to know that Mother Nature can provide a great lubricating, rust-preventing oil for your gear.) Our attention then shifted to working on cordage, including natural and synthetic cordage, learning several useful knots and when to use each.

Anxious to get up and stretch our legs, we left camp and went for a nature walk to look for natural resources, wild edibles and medicinal plants.



Estela shows how a Roycroft-style pack can be easily constructed and how to properly fit it to the individual. This pack frame can be constructed in about 30 minutes.



Estela shows everyone a popular “bivanorak.” This easy-to-pack item can be used as a bivy bag, rain poncho or even a quick shelter.

All of the day’s activities left us hungry, and there’s no better way to continue learning and keep with the theme of the weekend than for everyone to make some bannock, which we all did at dinner time.

DAY 2

PUTTING SKILLS INTO PRACTICE

As the second day got started, everyone was still buzzing about the day before and looking forward to what the next few hours would bring.

It was time to start applying what was learned on day one. The knots we had worked with were used as we got into discussing and building shelters, primarily tarp shelters.

I’ve already mentioned Estela’s emphasis on using traditional materials, but it’s amazing how fast a waterproof shelter can be built with a simple 10- by 10-foot nylon tarp. After this task, the now-seasoned “bushcrafters” were ready for debris shelters. Unfortunately, time

Bushcraft Skills Learned

- > Proper knife-handling techniques
- > Making an improvised bucksaw
- > Carving different types of notches
- > Tying different knots
- > Making pack frames
- > Making char cloth
- > Making birch bark oil
- > Different fire-making techniques
- > Identifying edible berries

constraints and the complexity of discussing debris shelters could not be covered effectively during such a condensed weekend, so our instruction was cut short in that area.

The try sticks were put to the test next as we learned several ways to construct cooking rigs from branches of various lengths and diameters. Getting a fire started is one thing, but being able to use it to cook a meal or heat up a drink is something everyone should know.

Estela then proceeded to show us how to properly build a three-stick Roycroft pack frame. I have built one of these before—but without tremendous success or comfort. By simply adding the proper notch cuts, the frame gains tremendous strength. Estela showed us an easy method for measuring out each of the three sticks to create a frame built for the individual. (You’ll need to attend a budget bushcraft course to learn this secret!)

PERSONAL INSTRUCTION PAYS OFF

Attendees of all ages participated in every step, and the class size of 12 to 14 students allowed Estela to be more hands on with everyone and answer questions. He explained not only what the students were doing, but also how each learned skill was to be applied—a critical aspect in the teaching and learning phase. That’s the difference you get with personal instruction.

We wrapped up the eventful weekend with a brief Q&A. Estela then presented everyone with a graduation certificate and an Estela Wilderness Education badge.

He pointed out, “You can purchase equipment; you can’t purchase skills.” In a day and age when we tend to put more emphasis on what we have rather than what we know, are we setting ourselves up for failure? We’ve all purchased the newest, greatest items because they seemed cool. We’ve packed it into the woods with us, but when we need to use it, we haven’t a clue. And while these items might be designed to make things easier—or us lazier (you decide)—most are unnecessary.

Maybe before spending another \$100 on a new piece of gear, think about investing that money into an experience that will have long-lasting results and give you confidence about your bushcraft skills—and yourself. **■ ■ ■**

Contact Information

Kevin Estela
www.kevinestela.com
estelawildernesseducation@gmail.com
 (860) 214-3629

review.01.16

THE BEST OF BOTH WORLDS

**LEUPOLD'S MARK AR MOD 1 1.5-4X20MM
OFFERS STRONG VALUE FOR THE PRICE**

Text and Photos by **Garrett Lucas**



DURING THE LAST DECADE, THERE'S BEEN A PHENOMENAL INCREASE IN THE VARIOUS TYPES OF OPTICS THAT INCORPORATE SOME SORT OF ILLUMINATED DOT, DELTA OR CIRCLE TO ASSIST WITH TARGET ACQUISITION. What's even better is that those optics are becoming more and more available to the average consumer as costs decrease with increasing production.

Most illuminated-dot/circle sights under the \$500 mark are going to be 1X magnification. "1X" basically means there is no magnification. The cost problem arises when you want to add magnification to the equation via a secondary magnifier or as an integral part of the optic.

Look around at the market, and you'll see that quality optics with 3X or 6X magnification and some sort of illumination in the sight can run from \$1,000 on up to \$4,000.

I don't know about you, but for me, that's a lot of money.



SPECIFICATIONS

	LOW	HIGH
Actual magnification:	1.5	3.90
Eye relief:	4.10 inches	3.70 inches
Linear field of view @100 yards:	73 feet	23.90 feet
Weight:	9.6 ounces	
Elevation adjustment range:	120	
Windage adjustment range:	120	
Objective diameter:	1 inch	
Tube diameter:	1 inch	
MSRP:	\$564.29	

With the Mark 4 Super-High Leupold rings, the AR MOD-1 is positioned perfectly as far as height is concerned. But Leupold also offers a Mark 4 scope base if you prefer that to regular rings.



(above) With the Leupold Super-High rings on the SCAR's Picatinny rail, the user is able to co-witness the sights absolutely with the scope's optics. (right) While we were able to get the reticle on camera, we couldn't capture the green dot. But this is an approximation of the view the user has on the scope.



MEET THE LEUPOLD MARK AR MOD 11.5-4X FIREDOT-G

I thought I'd heard of every illuminated sight on the market—until, thanks to a friend, I came across the Leupold Mark AR MOD 1 Firedot-G.

This item has been out for just over a year. However, even now, it seems to slip under the radar during tactical sight conversations. I don't understand why. It is essentially a 1.5-4X scope, but it comes with a little extra bonus: Leupold's green Firedot on its Special Purpose Reticle.

The Special Purpose Reticle was designed for tactical work and for quick sight acquisition. Aside from the illuminated .3 mil green dot, there is a 10 mil circle that surrounds the dot and a set of crosshairs with 2.5 mil hash marks for hold-overs. At 100 meters, one 2.5 mil hash mark is equivalent to 25 centimeters. (For those of us who still refuse to acknowledge the metric system, one 2.5 mil hash mark translates to 9.84 inches at 100 yards.)

NOW, MEET THE SPECS

The actual magnification range is 1.5-3.90X. Eye relief is 4.1 inches at 1.5X and 3.7 inches at 3.90X. The tube size is 1 inch, the objective is 20mm in diameter, and the elevation and adjustment range is 125 MOA. The green Firedot is powered by a 2032 battery. It is powered on by pressing the

gold medallion on the left side of the scope. To conserve power, the scope uses a motion sensor to turn off the green dot if there's been no movement for five minutes. It will come back on once movement is detected again.

All of that is available for an MSRP of only \$564.99. Considering that you get the illuminated green-dot optic, as well as the 1.5-4X magnification, that's quite a deal. On the street, however, you can find it for a for an even lower price.

USING THE MARK AR MOD 1 FIREDOT-G

Because the Mark AR MOD 1 is a tactical scope, it has micrometer-style adjustment dials for elevation and windage rather than adjustment dials hidden under caps. For me, this system is easier to manipulate than the hidden dials, and it allows the user to make quick adjustments in the field using the mil system, which is marked in tenths on the bottom half of the top dial and the entirety of the side dial.

As part of the package, the top dial is a bullet drop compensation (BDC) dial. By knowing the caliber, bullet weight, make or brand, muzzle velocity and things such as average temperature and elevation, Leupold can create and engrave a custom dial that has distance markings on it for your particular caliber and load. The cost is \$59, according to Leupold's website.

This specific turret was configured for a 55-grain .223 bullet traveling at 3,000 fps, but you can still use and zero the scope for any rifle. The upper half of the top turret has a band of numbers that mark distances in meters—depending on load information—for easy elevation adjustments after you've zeroed your rifle.

Of course, it is much better to have a lot of experience and know the "holds" for the loads you're using. Nevertheless, this type of system does help the beginner start to understand the basic principles of ballistics while still achieving some satisfactory results during the learning process. From there, the beginner can choose just how far into the deep end he wants to jump.

SOME NOTEWORTHY OBSERVATIONS

After having the chance to use the scope a few times, play around with it and see how it performs—especially in daylight—I was quite taken by the kit. The green dot covers .3 mils (1.1 inches) at 100 meters, so you get a precise and very visible center dot that is extremely easy to acquire, even during bright daylight hours. It's very simple to operate, and the controls are quite intuitive.

(right) One advantage of the Leupold AR MOD-1 is the bullet drop compensation dial (BDC) that can be used to quickly dial in the reticle from your point of zero. This alleviates the need of having to "hold over" the target.



(above) The AR MOD 1 Firedot-G is solidly built and falls under Leupold's lifetime warranty. The green Firedot is powered by a 2032 battery behind the gold Leupold badge on the side. (right) Leupold provides a windage dial on the right-hand side of the scope. The turrets both have dials that are rugged and have a very tactile response when making adjustments.



One thing that sets it aside from other similarly priced red-dot sights is that if the battery goes dead, you still have a regular scope with crosshairs and 2.5 mil hash marks. This is much better than an illuminated-dot sight that blinks out, leaving you with no reference point at all for aiming.

You don't have the same freedom of movement with your head and eyes as you do with a typical illuminated-dot sight, and you don't get true 1X at the low end, but the performance is very similar at 1.5X; and there's a great field of view and good eye relief at the 1.5X setting. Plus, the Mark AR MOD 1 adds so many other things to the equation that eye relief is a non-issue.

The user gets the extra reach of 4X magnification, the speed and the simplicity of the BDC dial for their favorite load. Additionally, the user essentially has two sights in one: the illuminated green dot and the crosshairs. And, there's the rock-solid Leupold lifetime warranty.

Whether it's for a tactical rifle or a favorite hunting rifle, the Mark AR MOD 1 1.5-4X Firedot-G scope delivers great versatility and exceptional value well beyond its market price! **AAA**

CONTACT INFORMATION

Leupold & Stevens
14400 NW Greenbrier Parkway
Beaverton, OR 97006-5790
(800) 538-7653
www.leupold.com

review.01.16

A SCOUT AND HIS RIFLE

STEYR ARMS REDESIGNS A CLASSIC
AND OFFERS A LOWER PRICE

By Terrill Hoffman



The Steyr Scout's profile is unmistakable. Many people pay such an inordinate amount of attention to the detail of the forward-mounted scope, they don't notice all of the rifle's other features.



SPECIFICATIONS

STEYR ARMS

Model: Scout Rifle

Caliber: .308 Winchester
(.223 Remington, .243 Winchester
and 7mm-08 Remington available)

Length: 38.6 inches

Weight: 6.6 pounds (unloaded)

Barrel: 20-inch cold-hammer-forged

Twist: 1-10"

Stock: Synthetic

Sights: Flip-up rear aperture and flip-
up front blade

Muzzle treatment: none

Magazine: five round
(extra magazine in buttstock)

MSRP: \$1,499

JUST ABOUT EVERYONE READING THIS ISSUE OF *AMERICAN SURVIVAL GUIDE* HAS PROBABLY READ A FEW POST-APOCALYPTIC NOVELS. THEY SEEM TO APPEAR ON BOOKSHELVES ON A REGULAR BASIS AND, IN TRUTH, THEY CAN BE ENTERTAINING.

However, as a beginner's guide for post-SHTF scenarios, these stories are truly lacking. Have you noticed that most of them seem to be stamped from the same mold? That is, society goes through a complete collapse (you can pick one of several reasons), but our hero trots through life, doing good for mankind. He even has time to work in a bit of romance with the young lady he just happens to stumble across in the havoc.

For us firearm enthusiasts, these novels can be even more interesting: The main character is not only guaranteed to have the latest and greatest firearms, but he will also be an expert in their use. I can't remember one book in which a horde of crazed bikers was faced down with a Sears single-shot shotgun with a taped-up buttstock. (Maybe there is a reason they call these books "fiction.")

However, the novels do get me thinking about what firearm would be the most appropriate for the situation, and every time, my thoughts return to the writings of Colonel Jeff Cooper. For our younger readers, Colonel Cooper passed away in 2006 after a long career as a Marine, teacher, gun writer and firearms trainer. His major claim to fame was his advocacy of the 1911 .45 caliber handgun, but he is also considered the father of the "scout rifle" concept.

Most of those who have read his works either admire him greatly or consider him a self-righteous blowhard. I, personally, fall in between these two schools of thought. While I do not agree with everything he wrote, I give the man credit for voicing his opinions without care of what others may think. You do have to admire his willingness to ignore political correctness in favor of his own beliefs.

STEYR SCOUT RIFLE

I cannot remember Cooper writing much about the “survivalists” of the late 1970s, and his death preceded the “prepper” movement, but he was responsible for what might be considered the ultimate survival rifle—the Scout.

Depending on how long you have followed the firearms market, your thoughts might go to the Ruger Scout or the latest announcement by Savage Arms to release its new Model II Scout. But the rifle I want to look at is the original Scout by Steyr Mannlicher.

This was the first production scout rifle and was introduced about 1998. It was also the only one endorsed by Jeff Cooper. Since that time, other companies have produced their versions of the concept, but recent modifications (and a sizable price drop) make the Steyr Scout worthy of a second review.

The best way to give you the design features of the Steyr is to relate Cooper’s criteria and how the Steyr Scout Rifle matches up. First, even though Cooper voiced his opinions on the perfect utility rifle, he collected a crew of top-notch rifle enthusiasts and held a conference to discuss every aspect of the design. Their findings were meant to be suggestions, and even they did not dictate exact specifications. The conclusions of those attending the conference were printed in Cooper’s book, *To Ride, Shoot Straight, and Speak the Truth*.

When the bipod is folded, you don’t even know it is there. The forend is rather comfortable in use and provides a good gripping surface.

“I CANNOT REMEMBER COOPER WRITING MUCH ABOUT THE ‘SURVIVALISTS’ OF THE LATE 1970s, AND HIS DEATH PRECEDED THE ‘PREPPER’ MOVEMENT, BUT HE WAS RESPONSIBLE FOR WHAT MIGHT BE CONSIDERED THE ULTIMATE SURVIVAL RIFLE—THE SCOUT.”

Until the built-in bipod is deployed, you might not even notice it. But it is there if you ever need it, and any problems some may have heard about with the early Scout bipods have long been resolved.

A MEASURE OF A SCOUT—BOTH WEAPON AND MAN

» A study of Jeff Cooper's writings will reveal his definition of a "scout." In Cooper's view, a scout is a soldier of the highest order and is active, intelligent, trustworthy and courageous. He acts alone and in advance of other troops to gain intelligence and to reconnoiter.

Although he is an excellent warrior, his aim is to avoid contact and detection. If forced into a conflict, he fires only to gain the opportunity to disengage.

The specific purpose of his rifle is to not have a specific purpose. This one weapon must take on several roles, from hunting to defense. It must also be short enough to be handy and light enough to be carried at all times.

If these attributes sound like those needed by an individual survivalist during a bugout situation, you are on the right path. Even when you have reached a retreat, you still can't venture out with a dozen weapons slung over your shoulder. One man, one gun!

The crown of the barrel is recessed for protection and is well executed. The same can be said about the barrel fluting. Any problems normally associated with lightweight barrels were not apparent during testing.



One of the newest features for the updated Scout Rifle is the rounded bolt knob. You can also see the rotary safety mounted on the tang of the action.

BARRELED ACTION

In 1984, when the First Scout Rifle Conference (as Cooper and his crew named it) was held, the general consensus was that the rifle had to be based around a bolt action. At the time of the first conference, there were no semi-auto rifles available that could maintain the weight and size limits and still be chambered for a cartridge of the desired power level. At the same time, rapid fire was not deemed to be a necessity. The Steyr Scout is, in fact, a short-action bolt gun.

It is somewhat interesting that the conference also called for the rifle to have a round, unchecked bolt handle. The original Steyr came with the typical "butter knife" bolt handle found on their other rifles, but that has since been changed to an enlarged, smooth, round knob. The group requested a trigger pull set at 3 pounds, but the Steyr sample rifle came in with a smooth trigger with a 4-pound weight of pull.

One unusual request made by the conference was that the rifle would have a magazine disconnect. This would prevent the rounds in the magazine from being fed into the action by the bolt and allow the single loading of cartridges. Thus, it would save the rounds in the magazine in case of emergency. Steyr followed their second suggestion of having a removable box magazine with two detents. The magazine can be inserted to its first detent, which would allow the bolt to ride over the cartridges. If these rounds are needed, the shooter can press the magazine into its second detent.

The Steyr comes with a lightweight, 20-inch, fluted and hammer-forged barrel. Cooper thought a 19-inch barrel would be needed to maintain the length limits of the rifle, but that did not prove to be a problem.



One advantage of the bolt-action rifle is that it's flat on one side and rides comfortably against the user's body. The ergonomics of the design and its light weight make this rifle a pleasure to carry in the field.

SIZE AND WEIGHT

The conference attendees decided the perfect utility rifle would be 1 meter in length and weigh no more than 3 kilograms with all accessories in place—but unloaded. (For country boys like me, that is 39.37 inches and 6.61 pounds.) The Steyr rifle is 38.6 inches and 6.6 pounds without a scope, so it does slightly miss the weight standard.

STOCK AND ACCESSORIES

Everyone at the conference liked wooded stocks but admitted that to reach the weight goal, a synthetic stock would be necessary. Steyr surpassed itself with its synthetic stock for the Scout Rifle, and it is now available in black, gray, olive-drab or MUD. The magazine and magazine well are both excellent designs, enabling rapid reloads while providing a secure lockup once the magazine is inserted. And, just to add a bit of spice, a second magazine can be stored in the bottom of the butt stock to double the capacity of the rifle.

The rifle is equipped with an accessory rail mounted flush with the bottom of the fore end. It was suggested that a bipod should be incorporated into the stock, but at the time of the conference, no suitable models were on the market. However, a seamlessly integrated bipod was a main feature when the Steyr Scout was introduced.

To finish things up, there are five flush-mounted sling attachment points mounted in the stock. Cooper had been a fan of the Ching Sling, and these attachment points allow for either left- or right-handed mounting of the sling.

OPTICS

When it came to the areas of optics and sights, Cooper and his associates were adamant. They were all in favor of a set of aperture iron sights to ensure that the rifle was usable, even if the Scout's optics should fail. The Steyr Scout has a nice set of fold-down sights that do not hinder normal function but are available when needed.

“THE CONFERENCE ATTENDEES DECIDED THAT THE PERFECT UTILITY RIFLE WOULD BE 1 METER IN LENGTH AND WEIGH NO MORE THAN 3 KILOGRAMS WITH ALL ACCESSORIES IN PLACE—BUT UNLOADED.”



The front sight blade is mounted on the barrel shroud and can be folded flat when it is not needed. The sighting radius may not be as long as it would be when mounted on the end of the barrel, but the sight is totally usable.



The last thing you want is for your rifle to go out of service due to a failed scope. The Scout has a flip-up rear aperture sight that stays out of your way until you need it.



The Burris Scout Scope is mounted forward of the action so that it does not interfere with loading rounds from the top. One drawback to this setup is that it requires a low-powered scope.



The staggered magazine will hold five rounds and can be set at two different detent levels. The first detent allows the bolt to ride over the cartridges so the rifle can be loaded from the top with single rounds.

The most obvious feature of a Scout Rifle is the forward-mounted, low-powered, long eye relief scope. Cooper believed that both eyes should remain open while shooting so as not to hinder peripheral vision, and this required a low power magnification. In fact, he thought a 2X or 3X scope should be the maximum. He also favored this setup because it would offer the least interference with operation of the bolt and loading.

During early planning for the Scout Rifle, Cooper had favored the ability to use “stripper clips” to reload that were similar to those found on several military rifles. This, alone, would require the scope to be mounted forward and out of the way.

This is a feature many will swear by and insist that a rifle is not a Scout without the forward-mounted scope. Many others will swear at it—and I happen to belong to this group. I believe that a 2X scope limits the usable range of the cartridge, and I have never had problems operating a bolt with a standard scope. At the same time, when Cooper was developing the Scout, the optics we have today were not available. If he were alive today, he might even be promoting a red dot or holographic sight. Because the Steyr Scout does not use stripper clips and comes prepared to mount both types of scopes, any shooter should be good to go.

CARTRIDGE

The cartridge of choice for many of the prototype Scouts was the .308 Winchester, and the first Steyr Scouts were chambered in this cartridge. However, as odd as it might seem, this is one area in which variations were allowed. Other choices, such as the 7-08, 6.5 and .350 Remington Magnum, had all been tested in prototypes. Steyr is currently offering the Scout in .223 Remington, .243 Remington, 7mm-08 Remington and .308 Winchester.

Cooper's criteria were that the rifle be powerful enough to strike a single decisive blow on a live target (man or beast) of up to 200 kilograms and that it should be capable of doing so at any distance from which the operator could place a shot in the vital area of the target. This placed the

“THIS IS A FEATURE MANY WILL SWEAR BY AND INSIST THAT A RIFLE IS NOT A SCOUT WITHOUT THE FORWARD-MOUNTED SCOPE. MANY OTHERS WILL SWEAR AT IT—AND I HAPPEN TO BELONG TO THIS GROUP.”



There is a middle-position sling mount on both sides of the rifle. This enables the use of a Ching Sling, which Cooper highly favored.

"AS A SIDE NOTE, COOPER AND I TOTALLY AGREE ON ONE FACT: HE OFTEN SAID THE .223 REMINGTON (5.56 NATO) WAS UNDERPOWERED AND REFERRED TO IT AS 'POODLE-SHOOTER.'"



PERFORMANCE

LOAD	VELOCITY	ACCURACY
Winchester 168-grain	2,411 fps	1.62 inches
Hornady 155-grain	2,756 fps	1.12 inches
Remington 168-grain	2,534 fps	1.50 inches

NOTE: Bullet weight is measured in grains; velocity is the average of 10 shots in fps measured 10 feet from the muzzle; and accuracy is in inches for the best five-shot group at 100 yards.

.308 Winchester at the top of the list. (As a side note, Cooper and I totally agree on one fact. He often said the .223 Remington [5.56 NATO] was underpowered and referred to it as a "poodle-shooter." I can't imagine him endorsing a Scout rifle chambered in this cartridge.)

RANGE TIME

Cooper was known to scoff at the accuracy requirements we often place on rifles and cared more about real-world results. For him, accuracy was a combination of both the shooter and the rifle. He promoted firing from field positions instead of a shooting bench and favored practical accuracy over intrinsic accuracy.

The Steyr proved to be an accurate rifle in both situations. I tested the rifle with three different loads, and all three gave results that would meet with Cooper's approval. The best results came while using Hornady's 155-grain Match loads, which produced groups in the 1-inch range. It should be noted that during the testing, I used a Burris Scout Scope to stay with the "theme" of this rifle; and because all accuracy testing was done at 100 yards, the low magnification power more than sufficed.

Overall, the Scout Rifle did not get picky with the ammunition it was fed and functioned beautifully during the entire session.


Burris is noted for its excellent optics, and the Burris Scout Scope is an outstanding example of the breed. I may prefer a more traditional scope arrangement, but the Scout Scope did perform well during testing.

Once velocity and bench accuracy testing were out of the way, the overall design of the Scout began to really shine. Its lightweight and short length made handling this rifle a pleasure. You will notice that there is very little difference between the height of the stock comb and the bore of the barrel. This configuration results in more straight-back recoil and prevents the barrel from having a pronounced climb during recoil. The felt recoil was a bit more pronounced than with some of my heavier rifles, but I would not rate it as uncomfortable.

VARIATION ON A THEME

Cooper always referred to the Scout Rifle as a "utility weapon." He used it mainly for hunting, because that was his need and he enjoyed any chance to put it to use. At the same time, he never wrote or referred to himself as a survivalist.

However, after fighting in both World War II and Korea, you would have to consider him a survivor. The rifle he and his group suggested for design was to be the one rifle that could handle a variety of tasks for the man with only one rifle.

You can call yourself a survivalist, a prepper or just a man wanting an excellent weapon. Under any label, if you have a Steyr Scout, you can also call yourself well armed. 

The flush-mounted accessory rail is "old school" and predates the Picatinny rails common today. It is a nice "extra" on any rifle.

CONTACT

Steyr Arms
2530 Morgan Road
Bessemer, AL 35022
(205) 417-8644
www.steyrarms.com

01.16



YHM
EXCEEDING EXPECTATIONS

SURVIVE WITH INNOVATION

KEYMOD MOUNTING SYSTEM

SURVIVAL CHECK LIST
FIRST AID
PROTECTIVE MASK
WATER CONTAINER
DRY RATIONS
KNIFE
PROTECTIVE GEAR
YHM-15 PISTOL

LOW PROFILE & LIGHT WEIGHT

AVAILABLE IN
9MM
300BLK
5.56NATO

YANKEE HILL MACHINE PROUDLY INTRODUCES OUR NEW YHM-15 PISTOLS

YHM.NET 877.892.6533 f/OFFICIALYHM

01.16

Two Seasons: Winter and Preparing For Winter

**TAKE ADVANTAGE OF EVERY OPPORTUNITY
TO STOCKPILE FOOD, WATER AND FUEL**

By **Dana Benner**

“Survival” means something different to everyone. For me, it means making sure my family makes it through the toughest of times—which, around here, means winter. Surviving sub-zero temperatures and snow that measures (as my father used to say) “butt deep to an elephant,” takes preparation.

That preparation is an ongoing process for me, and it starts even before the current winter’s snows have disappeared. When the power goes out or the trees are falling left and right, that is not the time to head out and stock up on water, food and batteries. Around here, there are only two seasons: winter and preparing for winter.

Winter in northern New England means deep snows, blizzards, loss of power for days on end and no access to services. It means relying on yourself, so the better you prepare during the warmer weather, the better you will survive when the times get rough. No summers at the beach for me! The list of things to do is never ending around the homestead, and each one seems to be a top priority.



***“SURVIVING SUB-ZERO
TEMPERATURES AND SNOW
TAKES PREPARATION.”***



**GETTING STARTED:
LATE FEBRUARY AND MARCH**

By the time winter ends around the Benner household (which is anytime from the beginning of March to the end of April), the freezer is pretty empty, as is the wood pellet shed. The pellets can be put off for a while, but the task of restocking the food supply is the first concern. Until that issue is resolved, we live off canned food. This time of year, I start looking forward to April, the opening of trout and salmon season and the beginning of the gardening season.

Late February finds me planning how I am going to set up my garden and what I am going to plant. The lure of fresh vegetables is almost too much to bear. This is also the time I start my tomato plants indoors from seeds saved from the previous year. Our growing season is so short that the seeds of plants such as tomatoes and melons will not have a chance to germinate and produce fruit unless they are started ahead of time.

Here is a thought about crops: The key is to grow crops your family will eat, that are suitable to your area and that store well. I



PHOTO BY THINKSTOCK

save as many seeds as I can from my plants from year to year. Not only does this save me money, it also makes good survival sense.


As soon as the snow is gone and the soil can be worked, I am out there, getting the garden ready. By the middle to the end of April, the danger of freezing temperatures and snow has pretty much passed, so this is when I start planting cold-weather crops. These include all of my root crops, lettuce and peas.

Spring also means rain, and that's when I clean and set up my cistern. The water stored here is what I will use to water my plants.



(left) A large garden will supply a family with quality food full of vitamins and minerals and adds variety to "survival" meals. (above) There are many water-collection systems that work well. One simple method is demonstrated here: a cistern used to collect water from downspouts.

"THE LIST OF THINGS TO DO IS NEVER ENDING AROUND THE HOMESTEAD, AND EACH ONE SEEMS TO BE A TOP PRIORITY."

A man in camouflage gear, including a jacket with "U.S. ARMY" on the pocket and a cap, is kneeling in a grassy field. He is holding a large wild turkey in front of him. A shotgun is resting on the ground next to him. The background is a field of tall grass under bright sunlight.

"... THE BETTER YOU PREPARE DURING THE WARMER WEATHER, THE BETTER YOU WILL SURVIVE WHEN THE TIMES GET ROUGH."

Get an early jump on the year's food-gathering by taking advantage of the spring turkey season.

Once the garden is set up, I concentrate on fixing any damage caused by the winter snows. There always seems to be something to fix, and some years are worse than others. Survival requires being smart and keeping materials on hand that will allow you to fix anything that is broken. To that end, there is always an assortment of nails, screws and bolts in my storage shed.

Also in the shed are 2x4s I picked up for nothing from people who were throwing them away, extra shingles for fixing roof problems and an odd assortment of plumbing pieces. I do have power tools—and they do save time in many cases—but I tend to rely more upon my hand tools, because they will work, even when there is no power.

FISHING AND HUNTING: APRIL THROUGH JUNE

After I have taken care of any damage to the house and outbuildings, my attention is next drawn to the near-empty freezer. April 1st is the opening of trout and salmon fishing, so any lake, stream or river free of ice is fair game. I fish for food, not sport, so I arm myself with both live bait and lures.

When fishing, the survival mindset means taking advantage of every opportunity that presents itself. I don't own a boat, but I know many people who do. Many times, they will call me to see if I want to go fishing. No matter what other tasks are at hand, I always say yes, because it is one of those opportunities you can't let pass.



Fishing is a survival resource that provides a good deal of food for the family throughout the year—not just in winter.



Woodcocks are another great food source. The author clearly had a good hunting day.

Fishing will consume most of my attention until the beginning of May, when my thoughts turn to turkey hunting. With about 60 percent of my food coming from what I can shoot, catch or grow, getting a turkey is very important. I hunt and fish primarily in Vermont and New Hampshire.



The advantage of having an assortment of hand tools available is that when the power goes off during the winter, the hand tools will get the job done just fine.

Vermont's spring turkey season begins on May 1st, and New Hampshire's season opens two days later. Vermont allows a hunter to take two bearded birds; New Hampshire allows only one.

Each state's season runs until the end of May, so I can put three birds in the freezer,

KEEP YOUR SHOOTING EDGE (PRACTICE MAKES PERFECT)

» A firearm is an important tool for many survival situations, particularly when it is needed to put food on the table. It is not enough to just *have* the firearm; you also have to know how to use it and when. A good hunter's firearm is like an extension of him/herself. In order to be proficient, you have to practice. For me, that means going to a shooting preserve.

How many times do upland hunters put away their shotguns at the end of the season and never pick them up again until September or October? Then, on the first day of pheasant season (or quail, grouse, etc.), they are dumbfounded because they can't hit the broad side of a barn. This inability to function is due to the lack of practice, and this is where shooting preserves come into the picture.



The author gets in some practice with sporting clays at the shooting preserve.

The issue that seems to be a concern for people is the cost associated with shooting preserves. While all offer the availability of membership, there are many also open to the public for a one-time fee based on what you want to do. (For instance, here, in New Hampshire, we have the Green Mountain Shooting Preserve; www.greenmountainshooting.com.) Starting in April, a preserve is the perfect place for hunters to hone their shooting skills.

When I practice at a preserve, I like to keep everything as it would be when I am hunting. My shotgun is a Mossberg 500 12-gauge pump-action. I use the same shot I would use on a hunt. I keep my edge by running through a couple of boxes of shells on either the five-stand or the sporting clays course. I want to retrain my muscles to get the gun to my shoulder safely, allowing me to make the shot.

You owe it to yourself and your family to get out there and practice. Take a few boxes of shells and head for a nearby shooting preserve. A little time spent working now might just make all of the difference, come opening day.



PHOTO BY SCOTT TSICK / GETTY IMAGES

Take advantage of the warm weather to do maintenance on generators and chainsaws, making sure they are ready to go if and when they are needed.

thereby providing many meals for my family. I am not hunting for a trophy bird, and time is always against me, so I will take the first legal bird that comes within range.

Come June, most of my cold-weather crops are up and, in some cases, an early first harvest can be taken in. I'm still fishing, but this time of the year, I find myself along the coast, taking advantage of the bounty there. Striped bass have arrived during their annual migration, and there are also bluefish and mackerel to be caught. Mussels and clams are added treats.

Back at the homestead, I take advantage of the warm weather to do maintenance on my generators and chainsaws, making sure they are ready to go when I need them. My generators are always well maintained and full of fuel, and I always have extra fuel on hand. If the power goes out, gas stations can't pump—no power, no gas.

I also use this time to stock up on water and replenish my stockpile of canned goods. In my free time, I start foraging in the fields



A major source of heat for the author's home during the winter is this wood pellet stove.

(below) Wood pellets are easier to handle than regular firewood and tend to burn more efficiently. It takes approximately 3 tons of pellets to heat the author's home each winter.

and woods for the first of the berries that are ready to be picked.

I plant squash and cucumber seeds, along with tomato plants, in the garden. I generally plant summer and winter squash and pumpkins. The summer squash will feed us during the warmer parts of the year, so I store the winter squash and pumpkins, giving us some variety during the winter. The same goes for the carrots, beets, turnip and potatoes as they become ready for harvest.

Back in the early days, people had root cellars in which they would store these crops. I don't have one, but I do have a basement. It is cool and dry and the perfect place to store my vegetables.

The rest of the summer is spent tending to the garden and catching fish, some of which is frozen, some is eaten for daily meals and some I will trade for things I need, such as fresh eggs and milk from a local farmer.



Other opportunities to obtain food occur during upland game and migratory waterfowl hunting seasons. Every chance to acquire food must be taken advantage of, or winter can be a very lean time.



THE HARVEST: JULY THROUGH OCTOBER

July and August is harvest time for a lot of vegetables. Green beans are eaten fresh or flash-boiled and stored in the freezer. Root crops are harvested and put into storage. I also take time to continue foraging for wild blueberries, strawberries and blackberries, which are now in full bloom. Collected berries are washed, put into freezer bags and stored in the freezer for later use. Any tomatoes not already eaten are made into sauce and put into the freezer.

These last two months of summer are also when I prepare extra fuel for the generators and begin the process of stocking up on wood pellets. I need a little more than 3 tons of pellets to heat my home through an average winter.

Come September, food is still an issue. I am still harvesting crops, but it is starting to slow down. Both Vermont and New Hampshire

***“IF YOU WANT
TO SURVIVE, YOU
CAN’T REST ON
YOUR LAURELS.
TAKE ADVANTAGE
OF EVERY
OPPORTUNITY
TO STOCKPILE
FOOD, WATER
AND FUEL.”***

have September hunting seasons and provide very liberal bag limits for resident Canada geese. When in survival mode, you have to take full advantage of every opportunity, and that goes for hunting geese, as well.

October has me harvesting the last of the squash and pumpkins, securing the last of my pellets and doing more hunting—this time, for migratory waterfowl, upland game and turkey. The waterfowl season is set annually, so there is no telling when it will start or end. Upland hunting runs until the end of the year, and the fall turkey season is only about a week long. If all goes according to plan, duck, turkey and upland game will be added to the freezer. Things will be looking up by then.

FINAL PREPARATIONS: NOVEMBER

November is dedicated to hunting deer. My goal is one deer from Vermont and New Hampshire. This month also means the final preparations for the cold that is sure to come.

With the first heavy snow, it is time to settle in, but that doesn’t mean that the work

Squash, pumpkin and bean seeds, dried and placed in storage.
(inset) Seeds need to be thoroughly dried before being stored, because moist seeds will rot. Seen here are tomato seeds that have been put out to dry. They will be used the following year.



Save the Seeds

The ability to obtain food is one of the key elements of survival. It doesn't matter if you are providing food for your family on the homestead or are in an unpleasant situation in the wilderness. Everyone has the ability to grow their own food; all you need is the drive—and the seeds. It is very easy to go to the store and buy them, but a time might come when we will not have that luxury. Start saving seeds now for the future.

I keep the seeds from every plant I grow, spread them on a piece of newspaper and dry them in the sun. Once the seeds are

thoroughly dry (this is very important, because moist seeds will rot during storage), I put them in zip-top bags or airtight containers and date and label each. (Some seeds, such as beans, peas and corn, can keep almost indefinitely; squash, pumpkin and tomato, on the other hand, are good for only a couple of years.) Store the seeds in a cool, dry location.

With all that is happening in the world today, it is not a matter of *if* something drastic will happen but *when* it will happen. Those who are prepared will survive.



Food and water will be the two most important commodities. Act now and make sure your family is prepared. You need to think long term; don't wait until it is too late. Grow your own food and save those seeds for future use.

to survive stops. During the winter months, I will be performing maintenance on my fishing gear, and although I am constantly cleaning my firearms, I use this time to fully break each one down for a thorough cleaning.

I constantly monitor the weather, because I don't like to get caught by unexpected storms. I monitor pellet usage, hoping there will be enough to see us through. I am also checking the amount of food we have. If I was fortunate enough to get two deer and five turkeys, combined with fish and other

game, we should be fine. But anything less, and we may not have enough to get by. This means spending money at the grocery store—the last thing I want to do.

Every year is different. Some years are easier than others. If you want to survive, you can't rest on your laurels. Take advantage of every opportunity to stockpile food, water and fuel. In other words, prepare for the rough times to come. Remember—there are only two seasons. ■■■

logistics.01.16





THESE BOOTS ARE MADE FOR ESCAPING

By Larry Schwartz

HOW TO PICK A PAIR OF BOOTS THAT MIGHT JUST SAVE YOUR LIFE

MY LOVE AFFAIR WITH HAVING AND USING THE RIGHT FOOTWEAR FOR THE JOB AT HAND GOES BACK TO THE SPRING OF MY 14TH YEAR, WHEN I TOOK MY FIRST SIGNIFICANT HIKE. The leather-soled walking shoes I was wearing warped into miniature rocking chairs as they were soaked and then dried out after an unexpected rain shower.

I learned several lessons that day—many of them about myself—but the most significant one was about choosing the right footwear for my adventures.



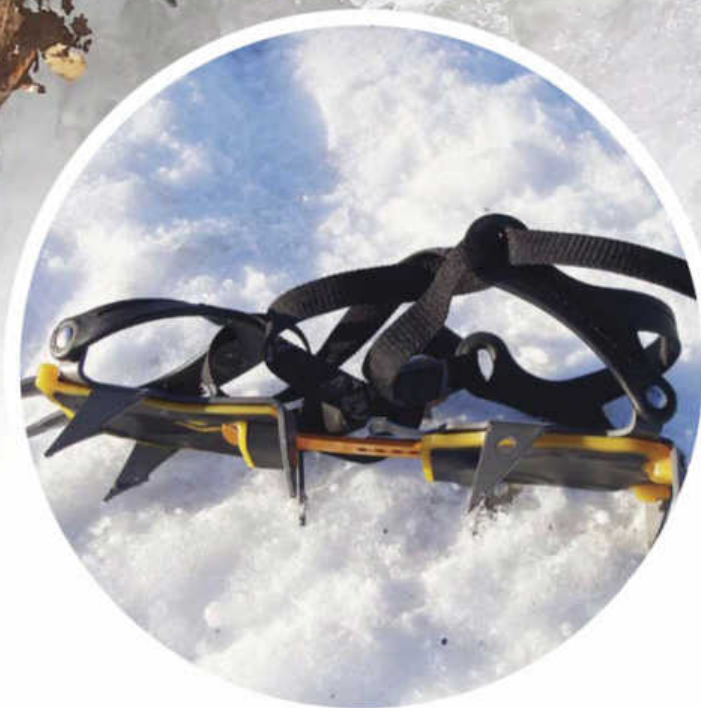
Crampons, like this step-in style, are great accessories for mountain boots. They allow the wearer to climb ice-covered slopes or cliffs. (inset) These strap-on crampons will help you walk more securely across snow-covered or icy terrain.

PICK THE RIGHT TOOL FOR THE JOB

When you are operating in the mountains, you face an environment that is extremely varied in terms of temperature, weather and terrain. As a result, you need a boot with a lot of capabilities, and your choice may be a compromise among these characteristics due to your specific needs.

Although there are some mountainous areas that are very dry, in most cases, you will want your boots to be waterproof. Many models come with a GORE-TEX or eVent liner that allows sweat to vent away from the foot and also keeps external water away from the foot. Although effective, over time, these materials can break down. A common and effective method to complement these liners is by using boot wax, such as SnoSeal or NikWax, to waterproof the boot's outer shell.

The composition and stiffness of the boot's midsole and outer tread is critical to your comfort and the effectiveness of the boot in different types of terrain. Softer treads are more useful on slippery surfaces such as wet rocks. However, if you are walking across surfaces such as small rocks or walking side-hill across a slope, a harder and stiffer sole will work much



**“FITTING A BOOT PROPERLY
REQUIRES LOOKING AT SEVERAL
THINGS—HEIGHT, LENGTH, WIDTH,
HEEL CUP SIZE, FOOTBOX SIZE
AND LATERAL MOVEMENT.”**

better. It will protect your feet from the hard objects you are walking on and bite into the hillside as you walk. Additionally, a heel that is higher than the rest of the sole is also a good idea, because it gives you extra traction when walking across or down slopes.

Insulation can be added into a boot if needed, but if you only plan to buy one pair of boots to use year-round, your best bet is to use different socks during each season to give you the level of warmth you need.

Boot height is another detail that many don't consider. A midcut boot that comes above the ankle will give you the ankle support you need and feels more like a shoe than a boot. However, if you want more support or will be moving through rougher areas with lots of brush or other low-to-the-ground obstacles, you might want a higher boot to help protect your lower legs.

GETTING THE RIGHT FIT

When you zero in on some boot models that have the features you need for your time in the mountains, it's time to find the one that also fits properly. Everyone has a slightly different foot shape. Most people have normal forefoot width, overall length and heel width.

For this reason, each bootmaker uses lasts and construction techniques they think set their boots apart from the rest of the market and help address one or more of the "non-standard" feet out there. So, you will want to choose a boot whose last and construction work for your feet's individual characteristics.

Fitting a boot properly requires looking at several things—height, length, width, heel cup size, footbox size and lateral movement. So, before you go to the boot store, there are a few things you should do:

- Go at the end of the day, when your foot will have swollen from walking on it during the day.
- Bring and put on the socks or mix of socks you will be wearing when you wear the boot. For example, bring your thick wool socks if you plan to wear an uninsulated boot during cold weather.
- Bring and wear any insoles or orthotics you plan to use with the boots.
- Try out multiple models from multiple makers, even if you find one that seems to fit well. You might find one that fits even better than the one you initially thought was perfect.
- If you will be backpacking or carrying weights as part of your mountain activities, bring a backpack with you so you can try the boots on and walk around in them with weight on your shoulders.



PHOTO COURTESY OF WWW.WIKIMEDIA.COM

The folks at Merrell Boots (www.merrell.ca) in Canada explain it best. Their fitting process has four basic steps (which I have paraphrased a bit):

> Step 1: Find your regular shoe size. If you don't already know it, have your foot sized at the shoe or boot store using a Braddock device—that metal device with the sliding scale you sometimes see at a shoe store. Depending on the particular bootmaker, you should start out with a boot the same size and width as your normal shoe or a half or full size larger.

> Step 2: Check the front-to-back length. Put the boot on, along with your socks and any orthotics or insoles you plan to wear, but do not lace it up. Then, stand up and push your toes forward so they touch the front of the toe

(above) Gaiters, which cover the top of the boot and the lower leg, provide protection from brush, snow and water.

(below) The tread on your boot is just as important as, if not more important than, the rest of it. Different tread patterns and rubber composition, such as this air bob pattern designed for use in the snow and ice, are available for practically any terrain or condition you can imagine.



PHOTO BY RUSSELL MOCCASIN COMPANY



PICTURE BY LARRY SCHWARTZ

box. With your foot forward, you should be able to fit one finger between the back of the boot and your heel. This is more accurate than the old technique of feeling for your big toe. If you can't get your finger in the gap between your heel and the boot, it is probably too small for you; you should go up a half or full size in that model.

> Step 3: Check the side-to-side width.

Now that you have the size right, slip your foot backward to seat the back of it in the boot's heel cup. Then, lace it up. When you stand up, the boot should feel snug in three areas: the heel cup, instep and across the ball of your foot. You should not be able to move your foot from side to side or front to back. On the other hand, your toes should be able to stretch, wiggle and curl, and your arch should be supported and comfortable, especially if you are carrying weight.

Boot waxes, such as SnoSeal and NikWax, are excellent ways to keep leather boots flexible and, at the same time, make the leather waterproof. Application twice a year is normally more than enough to keep your boots in good condition.



PHOTO COURTESY OF WWW.NIKWAX.COM

“DEPENDING ON THE BOOTMAKER, YOU SHOULD START OUT WITH A BOOT THE SAME SIZE AND WIDTH AS YOUR NORMAL SHOE OR A HALF OR FULL SIZE LARGER.”

> Step 4: Check for movement. The final thing you want to test is foot movement while you are walking. With the boots properly laced and snug, walk up an incline. As you walk, your heel will likely move up and down a bit. This is normal, but it shouldn't move more than a quarter or half an inch. If it does, you might need a boot model with a narrower heel cup, or you might need to add some padding in the heel cup.

Next, walk back down the incline and see what is happening to your toes. It is all right for them to move forward a little bit, but they should not move so far forward that they press into the front of the boot. They should just touch the front of the boot or not touch it at all. Pressure on the front of the boot (as would result from walking down a long slope) can result in a lost toenail over a long period of time. In addition, movement inside the boot is the major source of blisters on your feet, so keeping it to a minimum is essential.

If you find that your foot is moving inside the boot, you might be able to minimize it by changing the way you lace up the boot. Extra space under your foot can be solved by adding insoles or foot beds. And, adding heel cups can stop heel movement while also adding some padding for additional comfort.

THE BEST BOOT FOR YOU

Now that you know what to look for and how to determine if a boot fits properly, you are ready to hit the Internet to research various bootmakers in order to compile a short list of boots you want to try on; and do make sure you try them on.

As mentioned earlier, when your life depends on your footwear because you have chosen to hit the trail, spare no expense in taking care of your feet. In the end, it could be the difference between almost making it and actually getting there. **ASB**



YOUR MISSION. OUR COMMITMENT.



GEAR GUIDE

01.16

BOOTS

Heavy-Duty Stepping

Boots for When the Next Step Could Be Your Last ...

By **Larry Schwartz**

WE'VE ALL HEARD THE PHRASE, "fight or flight," when it comes to how human beings respond to a threat. I don't know what the exact percentages are, but I would guess that a large portion of the population would rather take off and find concealment or shelter when faced with a catastrophic event.

That's not a bad thought at all. Life is not a video game. You only get one chance at it, so it's best to play it smart.

So, for those who intend to head out on foot and look for safety at higher altitudes, quality footwear is the key to making the trip successfully, especially if you're traveling during the cold months. Important things to consider in a pair of backpacking or mountain boots include how well they support you and your pack, the amount of grip or traction the soles have, the build quality, the comfort and fit, whether they're waterproof and/or insulated and what kind of stability they provide for your ankles. High-quality boots cost a good deal of money, but when it comes time to put them on and trust your life to them, they'll be worth their weight in gold.

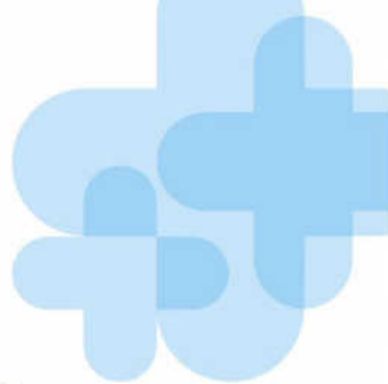
In the following gear guide, we showcase a variety of boot styles and some basic information about each one. Hopefully, that will be enough to get you thinking about your own footwear so you can start doing your own research to find out what's best for you.

If your survival plan includes hitting the trail and bugging out on foot, this is a product area you should think about carefully; and, if something is bad enough to send you up a mountain, your boots might have to last you a very, very long time.





PHOTO BY THINKSTOCK



\$475

www.kenetrek.com



Serious Support

The new Kenetrek Mountain Extreme 400 is a serious boot for rugged terrain. These 10-inch-high boots are made with a one-piece vamp of 2.8 millimeter, top-grain leather on top of stiff nylon mid-soles with high-traction K-Talon outsoles.

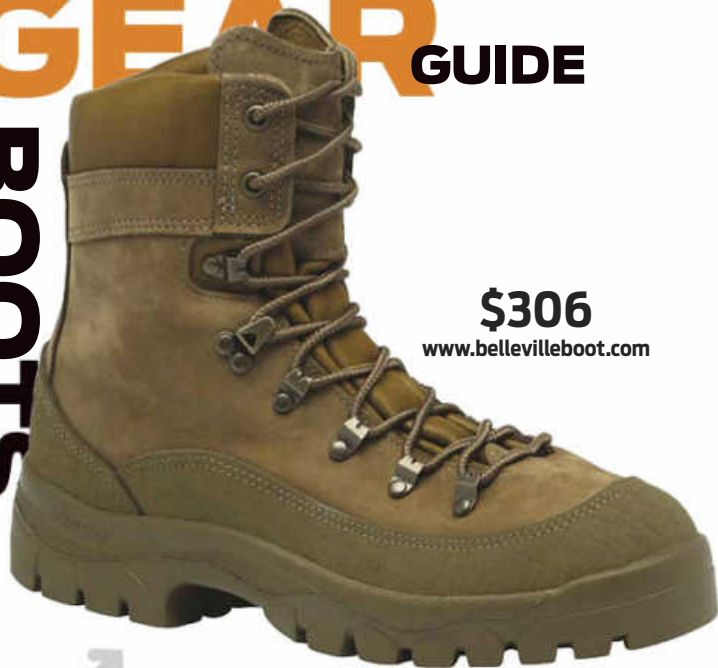
The Mountain Extreme 400 boot is waterproof, with a breathable Windtex membrane. Four hundred grams of Thinsulate insulation keep you warm and dry. It's sure to become your favorite boot due to its awesome support. What will really surprise you is just how lightweight and comfortable they are.

Specifications

- Leather
- 400 grams of insulation (also available in an uninsulated model)
- Windtex waterproofing

GEAR GUIDE

BOOTS



\$306

www.bellevilleboot.com

One Tough Boot

The Belleville Mountain Combat Boot is designed specifically for use in the most rugged and mountainous terrain. The 950 is as tough as it gets when it comes to military footwear. With its extremely durable leather and abrasion-resistant upper construction, this heavy-duty boot provides additional ankle stability, support and mobility that is required in a mountainous environment.

Specifications

- Leather
- Uninsulated
- Gore-Tex waterproofing



A Veritable Legend

U.S.-made Danner Elk Hunter boots are legends among serious Northwest hunters. These boots feature premium leathers and a GORE-TEX liner to deliver all the comfort and performance you need for days in the field.

Specifications

- Leather
- Uninsulated (also comes with 400-gram insulation)
- GORE-TEX waterproofing



\$270

www.danner.com



Cult Favorite

The Lowa Tibet is a workhorse of a boot and a cult favorite among hardcore backpackers and hunters. It is superstable and ideal for carrying heavy loads over long distances and rugged, off-trail terrain. Ankle flex is a touch softer than previous versions.

Specifications

- Leather
- Uninsulated
- GORE-TEX waterproofing



\$380

www.lowaboos.com



\$296
www.asolo.com

Optimum Performance

With a combination of GORE-TEX waterproofing, leather uppers, an aggressive lug outsole and shock-absorbers integrated into the footbed, the Asolo TPS 520 GV is designed for optimum performance on varying types of terrain.

Specifications

- Leather
- Uninsulated
- GORE-TEX waterproofing

To Your Specs

One of a just a few custom bootmakers, Russell Moccasin makes three mountain hunting boot styles specifically to your feet's dimensions, as well as your specifications for choice of leather, insulation, height, tread and color. Built for the most rugged applications, the Russell TLC Toe-Lace Hunter features a long contour that reaches to the instep for superb, side-to-side foot support on steep hillsides. It laces nearly all the way to the toe for greater control over the tightness of the boot, giving greater control in steep, treacherous conditions and allowing you to select the degree of tightness you want over the instep and ball of the foot. The TLC sports a standard Claw Air Bob sole with an outside cleat pattern for incredible traction. It can be resoled at the factory.

Specifications

- Leather (a variety is available)
- Uninsulated; Thinsulate insulation is available in 200 or 400 grams in the foot or throughout the whole boot
- WeatherTuff waterproof leather

\$527

www.russellmoccasin.com



THE ONLY MONTHLY SUBSCRIPTION THAT COULD KEEP YOU ALIVE!

CHOOSE FROM 4 DIFFERENT LEVELS
BASIC, ADVANCED, PRO, OR KNIFE OF THE MONTH!
KNIVES, SURVIVAL TOOLS, TACTICAL GEAR, & MORE!

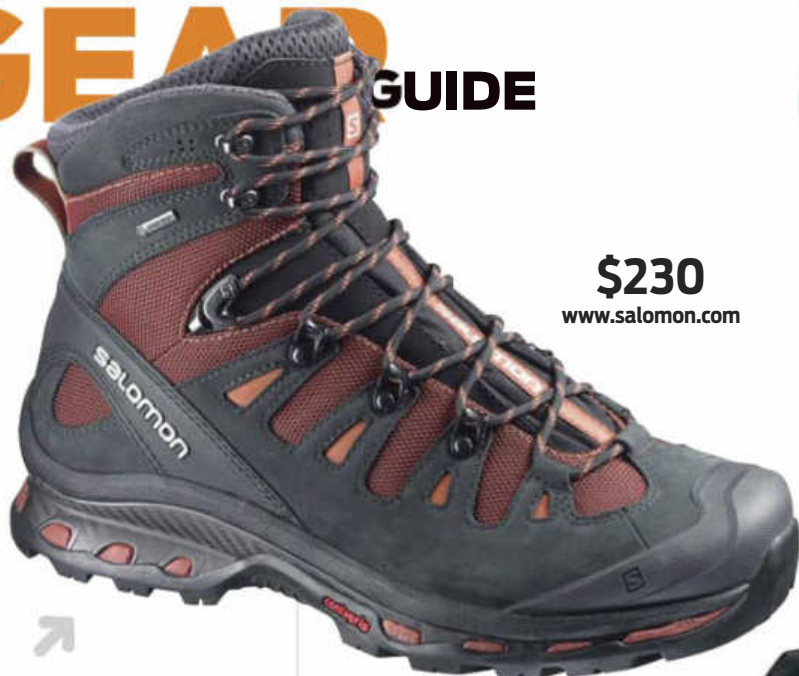
BATTLBOX™
SURVIVAL & TACTICAL GEAR
DELIVERED MONTHLY



**SIGN UP NOW AT
WWW.BATTLBOX.COM**

GEAR GUIDE

BOOTS



\$230

www.salomon.com

Ergonomic

The updated Salomon Quest 4D 2 GTX retains outstanding stability and grip and features a more-ergonomic tongue for improved comfort, laces that stay tied better and fresh design details.

Specifications

- Leather and Cordura
- Uninsulated
- GORE-TEX waterproofing

Archetypal Trekker

The Hanwag Alaska GTX is a lightweight and high-quality trekking boot with a modern look and GORE-TEX lining. It is extremely comfortable, designed for multiday treks, carrying a heavy load or taking day trips in the mountains. The archetypal trekking boot, the Alaska GTX is an absolute classic suitable for trekking adventures all over the world.

Specifications

- Leather
- Uninsulated
- GORE-TEX waterproofing



\$370

www.hanwagboot.com



\$206

www.bellevilleboot.com

Multifunctional

Approved for the U.S. Army and U.S. Air Force, this GORE-TEX-lined, waterproof boot is multifunctional and perfectly suited for ground combat use. The lace-to-toe design also allows for a better customized fit for increased stability and support.

Specifications

- Leather and Cordura
- Uninsulated
- GORE-TEX Waterproofing

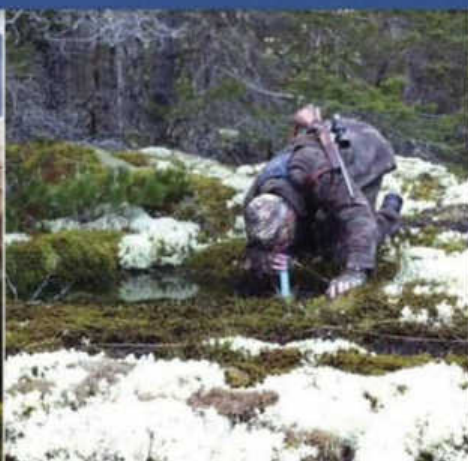


DRINK FROM THE SOURCE
WITH THE **AWARD WINNING**
LIFESTRAW WATER FILTER

1.888.451.6752 | BUYLIFESTRAW.COM

LifeStraw® 
PERSONAL WATER FILTER

- > Filters 264 gallons (1,000 liters)
- > Removes 99.9999% bacteria
- > Removes 99.9% protozoa
- > Weighs only 2oz.



GEAR

BOOTS

Oh, Canada

The Danner Canadian is made in the United States but is named for our neighbors to the north—or more accurately, their weather and geography. Those conditions demand 600-gram Thinsulate Ultra Insulation, GORE-TEX linings and a rugged, stitchdown build.

Specifications

- Leather
- 600-gram Thinsulate insulation
- GORE-TEX waterproofing



\$375

www.danner.com

For the Mountain Warrior in You

Created with the help of two career Army officers from Fort Lewis, Washington, the U.S.-made Danner Fort Lewis is FORSCOM approved and loaded with all the features a mountain warrior needs. A cushioning Vibram Kletterlift outsole fights fatigue on long hikes and climbs. Made of a specialized dry ice compound, the outsole remains flexible in extreme cold to aid slip resistance. The full-grain leather upper and GORE-TEX lining keep the boot waterproof. Danner's famous stitchdown construction gives a more stable platform underfoot and superior durability.

Specifications

- Leather
- Uninsulated
- GORE-TEX waterproofing



\$345

www.danner.com

Big-Game Hunter

The Lowa Bighorn Hunter is an ideal fall and winter big-game hunting boot. It is insulated with 200-gram PrimaLoft for those foul days in the mountains. Weight is reduced with a mountaineering rand. The G3 sole unit offers superb slip resistance on wet rock, snow and ice. It is also waterproof and breathable.

Specifications

- Leather
- 200-gram insulation
- GORE-TEX waterproofing



\$460

www.lowaboos.com

Every Soldier has a story to tell.

The personal recollections of these ordinary men and women who have done extraordinary things for their fellow Soldiers, their Army, and their nation will soon be told at the National Museum of the United States Army.



NATIONAL
MUSEUM

UNITED STATES

ARMY

(800) 506-2672
armyhistory.org

review.01.16

Bushnell Lights the Way

AND IT KEEPS THAT LIGHT BURNING

By Terrill Hoffman

THERE IS AN ADAGE THAT STATES, "ANYTHING THAT CAN GO WRONG *WILL* GO WRONG." This saying, or variations of it, is probably as old as mankind, but in our generation, it is simply known as "Murphy's Law."

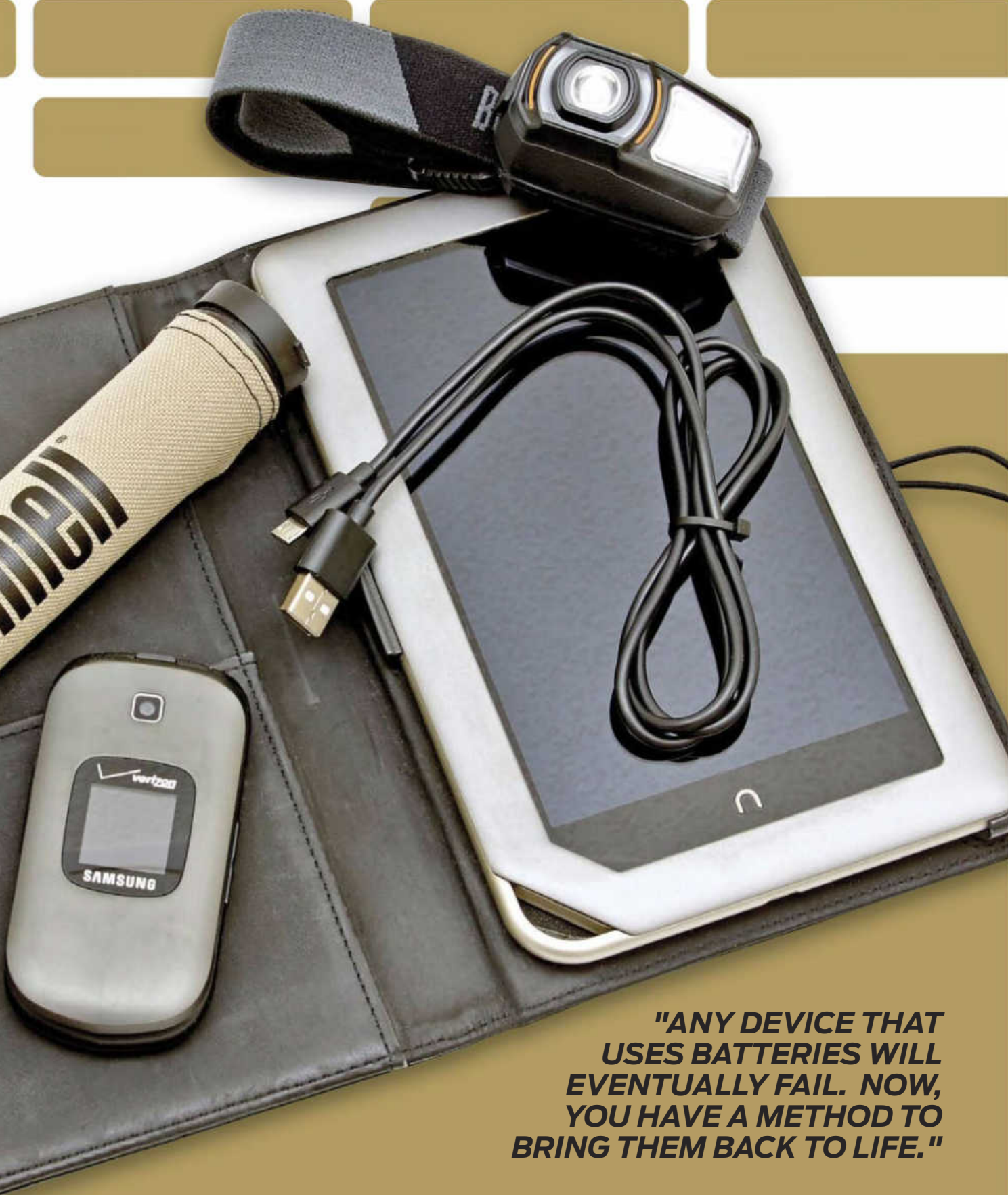
Murphy's Law may sound like nothing more than a pessimistic attitude but, for our readers, it can transfer into a logical approach for emergency planning. After all, to properly prepare, you have to evaluate every possible variation of what can go wrong and then arrive at a suitable solution.

This has been my approach for the past year as I have been considering the possibilities of power loss during troubled times. My time has been spent studying the full spectrum of options when it came to assuring a continuous supply of electrical power. However, I will admit that the majority of my efforts have been dedicated to selecting a whole-house generator.

The plan was simple: Review my needs and purchase a unit large enough to handle any requirement. I even spent a great deal of time considering the available fuel supplies before opting for a natural gas unit with a 500-gallon tank.

Any device that
uses batteries will
eventually fail.
Now, you have a
method to bring
them back to life.





**"ANY DEVICE THAT
USES BATTERIES WILL
EVENTUALLY FAIL. NOW,
YOU HAVE A METHOD TO
BRING THEM BACK TO LIFE."**

Then, Murphy's Law came sneaking into the equation. However, for once, I can say the solution actually arrived before the problem. I was attending a writer's gathering in Montana that was hosted by Blackhawk. For several days, we reviewed Blackhawk's products, as well as the products of other Vista Outdoor companies. At this event, I was introduced to the PowerSync and Rubicon Lighting products that Bushnell Outdoors was producing.

At first, I had to snigger to myself as I thought about my 20-kilowatt monster sitting at home, just waiting to kick in the second the power supply was interrupted. I mean, "I have horsepower! Why should I be looking at these toys?"

Then, it hit me like a sledgehammer, and old Murphy snuck into the equation. I realized my faithful electrical servant was sitting more than a thousand miles away. If the grid collapsed at that moment, those 20 kilowatts wouldn't do me a bit of good as I tried to make it home. Needless to say, I paid a little more attention to the Bushnell products and even arranged to do a little testing after the seminar.

BUSHNELL PRODUCTS

The core of this product line could be considered the PowerSync SolarWrap, which is a roll of flexible solar cells wrapped around a tube containing a high-capacity lithium-ion battery. The battery can be charged via your computer and then carried with you to recharge other

devices that use a USB port. Once the power is transferred, you can recharge the SolarWrap battery by simply unrolling the cells and letting them collect sunlight.

The Rubicon Lighting products comprise a series of flashlights, headlamps and lanterns that all use Cree LEDs. In each category, there is a rechargeable unit that will operate using the SolarWrap. Basically, Bushnell is supplying your electrical and lighting needs while still allowing you to add any other device that can be charged via USB.

"... OLD MURPHY SNUCK INTO THE EQUATION. I REALIZED MY FAITHFUL ELECTRICAL SERVANT WAS SITTING MORE THAN A THOUSAND MILES AWAY."



When rolled up, the Mini-Max is a compact unit sized for storage in a daypack or even a coat pocket.

(left) The rubber cap protects the mini-USB port used to charge the SolarWrap Mini-Max. Also visible are the four LEDs indicating the charge level. (right) The opposite end of the tube houses the USB port, which transfers power from the Mini-Max to your other devices. Just about any device that uses a USB port can be charged “free of charge.”

Even when the Mini-Max is spread out, it is still only 18x7.75 inches. Yet, when you need a little extra power, it is as reliable as the sun.

If you are on the move, you can hang the SolarWrap off a backpack or any other convenient location. As long as it is in the sunlight, it will recharge itself. Of course, the process is quicker if you can place it in a location that offers direct sunlight.



Granted, this sounds somewhat small scale when compared to my home generator, but I decided to put a couple of Bushnell products to the test.

After selecting a SolarWrap Mini-Max and a Rubicon H125R headlamp, it was time to harness the power of the sun. The Mini-Max starts off as a 7¾-x1½-inch-diameter tube until it is unwrapped to reveal a 7-x12-inch array of solar cells.

Per the instruction sheet, I first charged the Mini-Max by connecting it to my home computer. It should be noted that the Mini-Max came supplied with a connecting cord that has a USB connector on one end and a mini-connector at the other.

To charge the unit, remove the rubber cap at the end of the tube that houses the mini-USB port and plug in your cable. The other end of the cord is then plugged into your computer's



The Mini-Max held enough power to recharge the H125R two or three times without a hiccup. When you call it a day and go to bed, you can plug in whatever device needs to be charged, and it is ready to go the next morning.

If you are moving around in the dark, you need two things: a good light and the free use of your hands. The H125R supplies both. At 130 lumens, this isn't your granddad's flashlight.

RUBICON H125R LED HEADLAMP SPECS

MODE	LUMENS	RUN TIME
High spot	130	2 hours
Low spot	31	12 hours
High flood	38	3½ hours
Low flood	9	18 hours
Red halo	1	2 hours

USB port. There are four charging lights at this same end of the tube that will light up to indicate the charge held in the Mini-Max's battery. One light is 25 percent, two is 50 percent, three is 75 percent and four lights indicate a full charge. Because the unit came with a partial charge from the factory, it only took about an hour to bring it up to full capacity.

At that point, I turned on the main light of the Rubicon H125R headlamp until that unit was totally drained of its charge and turned itself off. The H125R is a multi-mode unit with a main spotlight and a secondary floodlight, both of which have high and low settings. There is also a red halo light that can be used without disrupting your night vision. An added feature of the H125R is the head mount with tilt adjustments to offer hands-free operation.

HOME TESTING

To recharge the H125R headlamp, remove the rubber cap on the opposite end of the Mini-Max, which reveals a full-sized USB port. By reversing the cable connectors, this leaves the small connector to plug into the H125R. The H125R completely recharged in fewer than three hours, and the Mini-Max showed an indication of having over 50 percent of its power left for other devices. Once I knew the light had a full charge, I again turned it on at high power and observed its total run time; the 130-lumen light lasted a little more than two hours. If you were to operate either the floodlight or spotlight on their low settings, you should get 12 to 18 hours of run time.

I was then able to recharge the H125R a second time without having to charge the Mini-Max.

Just charging and discharging a light really doesn't demonstrate how well it works, so I decided to take a late-night stroll around my property. I brought along the H125R headlamp to light my way. The full-power setting on the spotlight was more light than I needed, and the low setting was ideal for walking through heavily wooded areas. The floodlight option seemed ideal for operating around a campsite.

Continuing with my test of the Mini-Max, I used a discharged cell phone to drain the remaining power from the Mini-Max. The Solar-Wrap Mini-Max was then unrolled and placed in direct sunlight. As stated by Bushnell, it took about six hours to recharge the lithium-ion battery using the solar array.

Just to give me an excuse to keep playing with these units, I then brought the cell phone back up to full charge—as well as an iPod Touch and Nook reader.

Once all my testing was completed, the Mini-Max was recharged and rolled back up to await future use. The last few inches of the “wrap” comprise a canvas cover that goes around the solar cells for protection. In its wrapped mode, the whole unit will easily fit in the pocket of a small daypack.

The general concept is that you can use the Mini-Max to recharge lights, a phone or other devices as you sleep each night and then recharge the Mini-Max, itself, during the day. If you are on the move, just hang it off your pack and harness the sunlight as you stroll that 1,000 miles back home.

Bushnell’s Mini-Max might not be able to supply the same power as my home generator, but that is not the company’s goal. What it does supply is a renewable source of power and light.

Consider the ways Murphy’s Law can come into play in your life, and you have to admit that Bushnell is onto something with its charging and lighting products. **ASG**

CONTACT INFORMATION

Bushnell Outdoor Products
9200 Cody
Overland Park, KS 66214-1734
(800) 423-3537
www.bushnell.com



(above, top item) The **T250R Rechargeable Wide Beam Flashlight** provides 250 lumens for up to three hours. This output level is well within the realm of high-output, defensive lights.

(above, bottom item) The powerhouse of the rechargeable Rubicon Lighting series is the **T500R Flashlight**. At 500 lumens, it makes the output from my five C-cell flashlight look like candlelight.

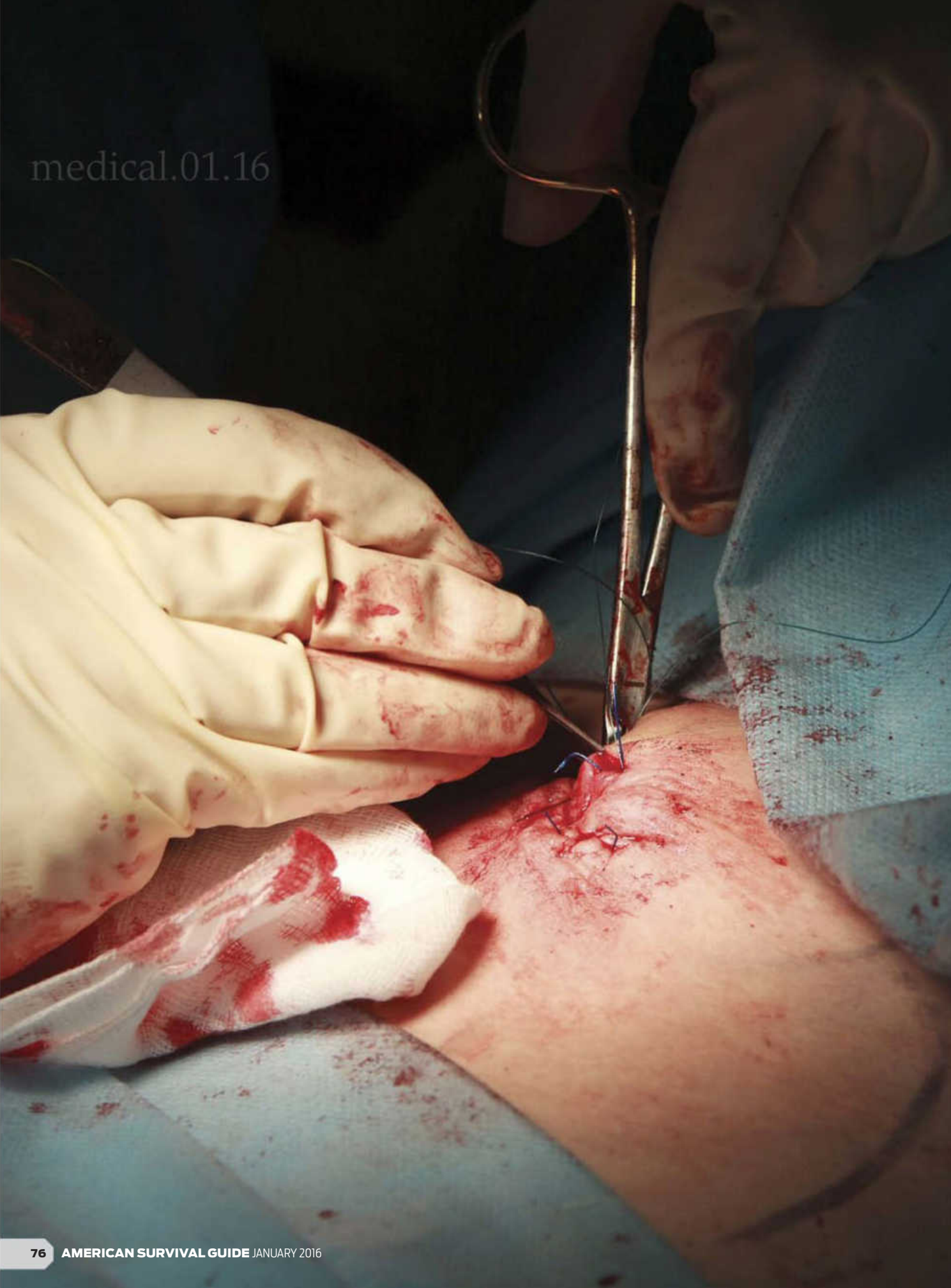
(below) The **A200R Rechargeable Micro Lantern** is part of the Rubicon Lighting group. When on high, the 200-lumen output will light up any campground, or you can opt for any of the other three modes. It is also a good item to have around the house—just in case your generator runs out of fuel.



My flip-phone might be a dinosaur today, but at least I am up to date with my charging method. The **Bushnell SolarWrap** assures you won’t drop a call due to a low battery.



medical.01.16



Suturing 101

WHAT I LEARNED FROM **DOCTOR BONES** AND **NURSE AMY**

Text and Photos by **Garrett Lucas**

Recently, I took a weekend off to get away and have some fun.

It was time for a road trip. Just three hours' drive away, the National Preppers and Survivalists (NPS) Expo was about to get started. This expo was a good chance to meet a lot of interesting people, see a variety of gear dedicated to preppers and learn from different speakers scheduled to talk during the two-day event. They covered topics such as bartering, bushcraft skills, essential oils, and gold and silver, among others. Well-known survival expert Dave Canterbury was there and drew the largest crowds for these free lectures.

However, the class I took on Sunday morning was a little different. It was a three-hour class (with an attendance fee of \$99) that focused on wound closures. I've always had an interest in this area of medical care, because I've often wondered what a layman would do if they or someone they were with got a wound or a laceration and there were no doctors or hospitals available.

Sure; I know what needs to be done, but how do you really *do* it? I had watched some YouTube videos, but that didn't quite do the trick, so I had to find another way. This wound closure class fit the bill.



The instructors for this course were Doctor Joe Alton and Amy Alton, an advanced registered nurse practitioner. They go by the nicknames of “Doctor Bones” and “Nurse Amy.” Both have been involved in the preparedness world for many years and have produced hundreds of videos and blog articles. Even more to their credit is the huge success of their book, *The Survival Medicine Handbook*, which was a number-one seller on Amazon.

The class covered wound closures in general but focused mainly on suturing. I got a lot out of those three hours. Doctor Alton began the class with a presentation showing different types of wounds and different wound-closure methods and provided information about the importance of maintaining a sterile environment.

The doctor emphasized the fact that if doctors and hospitals are available, you should use them and only resort to these alternative measures if you have no other choice. He also conceded that if you or a family member has to suture a wound in an emergency situation, you probably won't have a sterile environment, but you should attempt to provide as clean an area as possible.

CLASS BEGINS

I am not a doctor. What I convey in this article is what I understood from the class, based on my perceptions and observations. This is for general information only, and I would recommend

(left to right) Before the suturing class, I visited the Doom and Bloom booth, at which Doctor Bones and Nurse Amy were displaying their extensive line of medical products for sale. There were many free lectures the public could attend. Dave Canterbury seemed to draw the largest crowds, and empty seats were at a premium. The three-hour class started off with a good hour and a half of “theory.” There were discussions about wound types, what types of closures can be used, how to keep things sterilized and when to close a wound.

that you participate in your own training if this subject matter interests you.

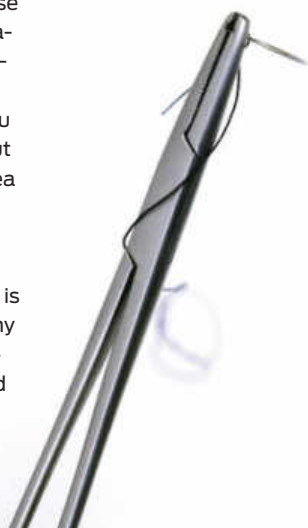
That said, the first areas we covered were the non-invasive and invasive types of wound closures. Whenever possible, non-invasive methods are preferred to avoid causing any more damage to the skin.

Non-Invasive wound closures: Examples of non-invasive methods include Steri-Strips or Super-Glue or medical glue such as Derma-Bond. Steri-Strips should be used when the laceration is fairly shallow, limited to the epidermis and when the laceration is somewhat narrow. When both sides of the wound are close together, it doesn't require as much tensile strength to keep it closed, compared to a wide cut, for which you have to pull the two sides together.

Super-Glue or Derma-Bond can be used for the same types of wounds. While these two adhesives are almost exactly the same, the chemical composition of Derma-Bond allows it to hold up better when the area gets wet.

A good piece of advice was that if some type of glue must be used to close wounds, we should test it on all family members ahead of time and watch for any reactions during the ensuing 24 hours. There's no sense in stocking up on Super-Glue, only to find out that someone has had a severe reaction to it.

Finally, something else the doctor pointed out was that glues used for wound closures are not as strong as sutures.





Invasive wound closures: On the opposite end of the spectrum are sutures and staples. These are very invasive, because two new holes are created in the skin at every point you bring the wound together, thus increasing the chance of bacterial contamination and infection. Having an infection in a SHTF scenario when doctors aren't readily available is definitely something you want to avoid. So, go with the Steri-Strips or Super-Glue when possible.

Before we learned how to suture and staple wounds, we discussed when they should be used—and especially when they shouldn't. There are several things to consider before suturing or stapling a wound. First, you must determine the type of wound it is. If it's a large, gaping wound such as an "avulsion" (when a chunk of skin is torn away), the sides of the wound are too far apart to be brought together.

In such a case, you should leave the wound open and pack it with sterile gauze that's been moistened with a sterile solution. This will help stave off bacterial growth and infection. The packing should be changed at least a few times a day. This type of wound would heal from the inside out in a process called "granulation," rather than healing by growing into adjacent flesh that's been pulled together with sutures.



"[DR. ALTON] EMPHASIZED THE FACT THAT IF DOCTORS AND HOSPITALS ARE AVAILABLE, YOU SHOULD USE THEM AND ONLY RESORT TO THESE MEASURES IF YOU HAVE NO OTHER CHOICE."

Some basic indications that a wound should *not* be closed include:

- > The wound is dirty or contaminated.
- > The wound is already infected.
- > The wound is more than eight hours old.
- > The wound is large and gaping (as already discussed).

If conditions indicate that the wound needs to be left open, it should be treated with moist heat, drainage and antibiotics. I asked Doctor Alton what antibiotics are best for dealing with wounds (rather than internal issues). He said amoxicillin or cephalexin—that is, if you're not allergic to penicillin. In the case of penicillin allergies, Dr. Alton suggested erythromycin or clindamycin.

Clearly, it's best to do your research ahead of time so you know what to keep on hand.

Some basic indications that the wound *should* be closed include:

- > The wound is clean.
- > The wound is not infected.
- > There is no dead or burned tissue in the wound.
- > The wound is fewer than eight hours old.
- > The wound is deep.
- > The wound is over a joint.
- > The wound is too wide for Steri-Strips to effectively close it.

Before actually closing the wound, try to determine if the closure you want to use

(i.e., suturing or stapling) will result in a decent seal of all the layers of the wound, such as the epidermis, the dermis and even the fatty tissue below. If you pull the top together but leave a void, or “dead space,” beneath the closure, that situation will create an almost-guaranteed infection because of too much open space that would act as an incubator for bacteria. This type of scenario might call for having to stitch together two or three layers of the wound so there isn’t a large void.

Remember: We aren’t surgeons; we are amateurs having to treat wounds under bad conditions. Unless you went to medical school, the best you can do might not be enough. Chances are that if we must create sutures deep inside the wound to avoid dead space, we’re not going to do a great job.

And that’s when Dr. Alton mentioned Penrose drains.

A Penrose drain is a small, rubber tube placed in the wound to allow drainage and avoid fluid buildup. A small portion of the drain will remain outside the wound at the suture line and will drain fluids onto gauze padding. Drainage should be monitored carefully. This is an excellent entry point for bacteria, and chances of infection increase dramatically after three or four days post-insertion of the drain.

STAPLES AND SUTURES

Stapling is a faster process than suturing, but it has limitations. Due to their relatively small size, staples should be reserved for lacerations of the epidermis. Suturing, on the other hand, can be done deeper inside a wound to bring different layers together as you work your way to the top.

We finally got to practice both suturing and stapling (on a pig’s leg). Following is the preparatory procedure before proceeding with this method of closing a wound (I’ll just note some of the major points from the class session):

- > Irrigate the wound with sterile solution to clear out dirt and other foreign particles.
- > Always prep all sides of the wound with a Betadine pad or applicator by starting at the wound and applying the Betadine in a circular motion, moving out and away from the wound.
- > A fenestrated drape (a drape with a window in the center) helps maintain a sterile field and comes in a standard laceration tray with other materials and tools.

Doctor Alton didn’t think the forceps that came with the laceration tray were delicate

1. This was my “sterile field,” on which I got to practice what we learned. Two important things to remember are: 1.) Prep the wound with an antiseptic such as povidone-iodine and 2.) Dump your material out of the tray instead of pulling it out. The less contact you have with materials, the less likely bacteria will be transmitted.

2A & 2B. My tablemate has drawn the suture through both sides of the wound on her first stitch. Here, she ties off the stitch first with a surgeon’s knot and then finishes a tower of five more simple knots.

3. After the suturing exercise, we learned the process of properly closing a wound with surgical staples. Two people were required to get the best results, so my partner held the flaps of skin together while I stapled. (Unfortunately, I think that’s going to leave an ugly scar.)

How to Make Saline Solution

You’ll need:

- a pot with a lid
- a heat source
- 1 liter of water
- 2 teaspoons of salt

Boil the water and salt for 15 minutes; let it cool. Pour the water into a sterile jar and close it with a sterile lid.

If the jar remains closed, it will remain sterile for a month; if it remains open, it will be sterile for only 48 hours.





Types of Suture Materials

ABSORBABLE

Natural

- surgical gut (plain—will expire on shelf)
- surgical gut (chromic—will expire on shelf)

Synthetic

- polyglactin
- polydioxanone
- poliglecaprone

NON-ABSORBABLE

Natural

- Silk

Synthetic

- polyester/Dacron
- nylon 6
- polypropylene
- stainless surgical wire



4A



4B

4A & 4B. Doctor Bones and Nurse Amy showed me the proper way to get a clean closure with surgical staples.

5. Here is the end result of the stapling procedure that was completed by Nurse Amy and Doctor Bones. They picked up both pieces of skin higher and almost inverted them, so when they let go, the staple closed the wound more cleanly and evenly.



5



enough to work with human skin. So, he provided us with Adson tissue forceps, which he felt were more suited to the task.

- > We used a 2-0 silk suture (non-absorbable), which is relatively thick, in order to make it easier to learn to tie knots and also increase the strength of the sutures.
- > For suturing, we used triangular cutting needles, because they make it easier to get the needle and suture through the tissue.
- > We held the piece of skin to be sutured with the Adson forceps. It allows you to maintain visual contact with the needle so you know where it's going and to prevent the needle from poking into the wound itself.
- > We used interrupted stitches. It saves the amount of suture material you use. Also, if you do one stitch at a time and tie it off, you don't have to worry about the entire suture line breaking down because of one stitch failing.
- > We tied and pulled the knots so they were all on one side of the wound.
- > To get the best effect from stapling, two people should do the job. In our class, one person used two Adson forceps (one in each hand, held as if they were writing) to grab both sides of the wound closest to the person doing the stapling, bring them together and bring the two sides up, slightly inverted. The other person then placed the staple. This method was repeated until the wound was closed.

WELL WORTH THE DRIVE

After that, the class quickly ended, and we cleaned up our work areas. My juices were flowing. I had a little knowledge, and now, I was "dangerous!"

I started making lists in my head of what I needed to acquire and store. One thing I learned is that just one wound can quickly knock out an average person's supply of gauze wraps and pads.

It had been a three-hour drive and \$99 to sit in on that class, but it was well worth it. The class opened up a whole new area for me, and I'm going to dig into the practice, as well as the theory.

If you're a serious prepper, this kind of training is absolutely required to get you rolling in the right direction. You'll be glad you took the time to get professional training instead of watching YouTube videos at home. **AAA**

CONTACT INFORMATION

www.doomandbloom.net | drbonespodcast@aol.com

how-to.01.16





RIFLE SURVIVAL TACTICS

OPTIMIZING THE .22 PISTOL FOR SURVIVAL

Text and Photos by **Kevin Estela**

YEARS AGO, SOMETIME IN THE 1990S, AN ARTICLE APPEARED IN *AMERICAN SURVIVAL GUIDE* ABOUT THE POTENCY OF THE SCOPED .22 PISTOL FOR SMALL-GAME HUNTING. I never forgot the author's words, and in time, I bought my first .22 handgun for my backwoods travels.

I then read George Jasper's *Six Ways In & Twelve Ways Out* and learned of Race Dragons (heavily modified .22 pistols carried by the U.S. Rescue and Special Operations Group cadre), and I started looking at other .22 handguns. After some trial and error and costly purchases of firearms that didn't work for my needs, I finally settled on the optimal .22 pistol for small-game hunting or for an emergency or survival situation.

How I decided on this pistol, my rationale and my decision-making process are outlined in what follows.



THE .22LR ROUND

The .22LR round is, for the most part, an inexpensive choice for small-game hunting. Other rimfires, such as the .22 magnum and .17 caliber rounds, are available, but these are more expensive than the standard .22LR rounds. Walk into any hunting store, and you'll likely see the most common calibers: 12-gauge, 30-30, 30-06 and .22LR. For a dedicated survival pistol, this rimfire round has near-zero recoil, is easy to carry and, with modern manufactured ammo from reputable companies, is exceptionally reliable.

A sleeve of 100 CCI rounds weighs less than a loaded 30-round AR 15 magazine. The relatively low cost, compared to larger centerfire pistol calibers, also means the shooter is more likely to practice if financial concerns normally prohibit training. The .22LR round is also more than adequate for close-range hunting; and when high- or hyper-velocity rounds are used out of pistol-length barrels, the round provides enough knock-down power for commonly found small and medium-sized mammals. The .22LR round is a true survival caliber.

(top) The Smith and Wesson Model 317 3-inch Kit Gun makes for a lightweight pot-filling handgun. Compact and reliable, it is easily packed and forgotten about until needed. (inset) While the .22 revolver offers the advantage of its featherweight construction, reloading is slow, because eight individual rounds must be loaded into eight individual chambers.

HANDGUN VS. RIFLE

Comparing a rifle and a handgun is not fair. Rifles have inherently more accuracy, with a longer sight radius and improved velocity over shorter-barreled pistols. However, pistols offer compact carry, are lightweight and are easier to conceal than their long-barreled relatives.

Some pistols, such as the Browning Buckmark, have barrels that are easily changed with nothing more than an Allen wrench, so it's possible to have multiple barrels for a single handgun. Both short and long barrels, from 4 to 7 inches in length, have their benefits, and one receiver can accommodate both.

A pistol can be maneuvered in confined quarters such as thick brush, where a more traditional rifle shooting position is impractical or impossible. Also, the pistol can be shot from a single hand with practice far easier than single-hand shooting with a rifle. If space allows, a rifle is an excellent tool, but when space is at a premium, the .22 handgun is the way to go.

PISTOL VS. REVOLVER

The argument over semi-automatic pistol vs. revolver will inevitably come up. Some firearms owners will never purchase a pistol, and others will never own a revolver; each claims their choice is the right one. In the end, your final choice should be whichever you feel most comfortable with and can shoot the most accurately.

After owning both revolvers (such as the Smith and Wesson Model 317) and pistols (such as the Ruger Mark II and Browning Buckmark), I settled on the Buckmark as the platform on which I would ultimately build my dedicated survival pistol.

Revolvers such as the 317 are supremely light, but reloading is slow. Even with speed-loaders, a revolver requires placing eight rounds in eight holes simultaneously, whereas a pistol



(top) A good weapon light such as the Streamlight TLR1 will extend your ability to use your firearm into the dark hours of the night, when animals become active.

(middle) A small section of Picatinny rail was mounted to the 6 o'clock location on the barrel to secure a weapon-mounted light. A quality gunsmith should be able to easily drill and tap a barrel.

(bottom) HiViz sights help pick up any light and illuminate the green insert, which is easily detected against most backgrounds, including orange leaves in the fall.



***“FOR A DEDICATED SURVIVAL PISTOL, THIS RIMFIRE ROUND HAS NEAR-ZERO RECOIL, IS EASY TO CARRY AND, WITH MODERN MANUFACTURED AMMO FROM REPUTABLE COMPANIES, IS EXCEPTIONALLY RELIABLE.*”**



(clockwise from above) The Browning Buckmark has a 10+1 capacity of .22LR rounds. • A mini red-dot sight such as the Burris Fastfire II or Fastfire III allows quick target acquisition, reducing the need to align a front ramp with a rear notch. Simply place the red dot over your target and squeeze the trigger. • A threaded barrel can accept muzzle brakes, as well as sound suppressors. If a front sight is too close to the end of the barrel, the sight is removed, reattached farther back out of the way, and a thread protector is installed.



with a magazine requires lining up the magazine with a single opening. Revolvers have their place (dangerous-game protection)—being chambered in calibers a magazine-fed pistol can't handle practically—but should you need to reload under stress, it is much faster to do so with an autoloading pistol than a revolver.

Pistols such as the Ruger Mark II, Mark III and the Browning Buckmark also fire in single-action mode. Compared to the heavy, double-action triggers of revolvers requiring more force to move the hammer, once the pistol's slide is charged and bolt locked in battery, the trigger will "break" with much less force. This will aid in making accurate shots, because your hands are less likely to shake and, therefore, will not change your sight picture as you wait in anticipation for the recoil and report of the round fired.

WEAPON LIGHT

The first modification made to any survival firearm meant for hunting should be the addition of a flashlight or weapon light. Dawn and dusk are active times for small game, and the

JANTZ

knifemaking.com



Pattern 41 Blades

Overall Length: 7 5/8", Blade Length: 3", Width: 1", Thickness: 1/8"

CAT.#	STEEL	FINISH	PRICE
J4198	1095	Satin	24.95
J419K	1095	Black Teflon	24.95
J4127	D2 Steel	Peened	32.95
J4128	D2 Steel	Satin	32.95
J4137	CPMS 30V	Peened	42.95
J4138	CPMS 30V	Satin	42.95
J4189	Damascus	Random	79.95

Pattern 42 Blades

Overall Length: 6 5/8", Blade Length: 2 5/8", Width: 7/8", Thickness: 1/8"

CAT.#	STEEL	FINISH	PRICE
J4298	1095	Satin	24.95
J429K	1095	Black Teflon	24.95
J4227	D2 Steel	Peened	32.95
J4228	D2 Steel	Satin	32.95
J4207	440C	Peened	32.95
J4208	440C	Satin	32.95
J4257	CPM154	Peened	39.95
J4258	CPM154	Satin	39.95
J4289	Damascus	Random	69.95



Pattern 44 Blades

Overall Length: 6 1/2", Blade Length: 2 1/2", Width: 1 1/8", Thickness: 1/8"

CAT.#	STEEL	FINISH	PRICE
J4498	1095	Satin	24.95
J449K	1095	Black Teflon	24.95
J4427	D2 Steel	Peened	29.95
J4428	D2 Steel	Satin	29.95
J4407	440C	Peened	29.95
J4408	440C	Satin	29.95

Pattern 45 Blades

Overall Length: 7 3/16", Blade Length: 3 1/4", Width: 1 1/16", Thickness: 1/8"

CAT.#	STEEL	FINISH	PRICE
J4598	1095	Satin	24.95
J459K	1095	Black Teflon	24.95
J4527	D2 Steel	Peened	32.95
J4528	D2 Steel	Satin	32.95
J4507	440C	Peened	32.95
J4508	440C	Satin	32.95
J4589	Damascus	Random	79.95

CAT.#	SHEATH	PRICE
KT410	Kydex	12.95
KT455	Kydex Belt Clip	9.95

CAT.#	SHEATH	PRICE
KT420	Kydex	12.95

CAT.#	SHEATH	PRICE
KT440	Kydex	12.95
KT455	Kydex Belt Clip	9.95

CAT.#	SHEATH	PRICE
KT450	Kydex	12.95
KT455	Kydex Belt Clip	9.95

USA MADE PARACORD \$6.99/100ft - 40 colors

Pattern 31 Blades



Overall length 7 5/8", Blade Length 3", Blade Width 1 1/8", Blade Thickness 5/32". Bolster holes 1/8", Handle Holes 1/4", Thong Hole 1/4". Cryo Tempered.

CAT.#	STEEL	FINISH	HRC	PRICE
J3128	D2	Satin	59-61	31.95
J3148	154CM	Satin	58-59	35.95
J3198	1095	Satin	57-58	24.95
J319K	1095	Black	57-58	24.95
J3189	Damascus	Etched	58-60	99.95

Handles for Pattern 31



Contoured and textured handles for Pattern 31. Cut slightly oversized for proper fitting. More handle options are offered online.

Handles Smooth No Texture

CAT.#	COLOR	MATERIAL	PRICE
D3149	B.I./Cocobolo	Dymondwood	16.95
G3119	Black	G10	18.95
G3129	Red	G10	18.95

Handles Basket Weave Texture

CAT.#	COLOR	MATERIAL	PRICE
M3131	Red	Micarta	16.95
G3111	Black	G10	21.95
G3131	Orange	G10	21.95
G3151	Olive Drab	G10	21.95

Rivets/Pattern 31

Torx Screw for use with the G10 textured handles. Corby rivets for use with Dymondwood handles for flush surface.

CAT.#	TYPE	ALLOY	PRICE
B451	Torx	Brass	3.95
A461	Torx	Stainless	4.95
B660	Corby	Brass	3.49
A624	Corby	Stainless	3.49

Bolsters/Pattern 31

260 brass and 410 stainless, with matching pins. 3/16" for G10 contoured handles and 1/4" for Dymondwood handles.

CAT.#	THICK	ALLOY	PRICE
K311	3/16"	Brass	6.95
K316	3/16"	Stainless	6.95
K313	1/4"	Brass	6.95
K314	1/4"	Stainless	6.95

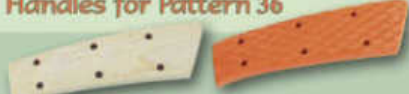
Pattern 36 Blades



Overall length 7 5/8", Blade Length 3", Blade Width 1", Blade Thickness 1/8". Bolster holes 1/8", Handle Holes 1/8", Thong Hole 1/4". Flat ground.

CAT.#	STEEL	FINISH	HRC	PRICE
J3628	D2	Satin	59-61	31.95
J3638	CPMS30V	Satin	59-61	41.95
J3608	440C	Satin	57-58	31.95
J3698	1095	Satin	57-58	24.95
J369K	1095	Black	57-58	24.95
J3689	Damascus	Etched	58-60	74.95

Handles for Pattern 36



Contoured and textured handles for Pattern 36. Cut slightly oversized for proper fitting. More handle options are offered online.

Handles Smooth No Texture

CAT.#	COLOR	MATERIAL	PRICE
D3653	B.I./Rosewood	Dymondwood	16.95
E3601	Birdseye Maple	Wood	24.95
E3672	Desert Ironwood	Wood	39.95

Handles Basket Weave Texture

CAT.#	COLOR	MATERIAL	PRICE
G3610	Black	G10	21.95
G3630	Orange	G10	21.95
G3650	Olive Drab	G10	21.95
G3660	Blue/Black	G10	21.95

Pins/Pattern 36

Handle pins available in brass and stainless steel. (Set of 6)

CAT.#	SIZE	ALLOY	PRICE
B826	1/8"	Brass	1.99
A846	1/8"	Stainless	1.99

Bolsters/Pattern 36

Bolsters are oversized, for proper fitting and include two matching pins. Dry fit bolsters and polish front edges before peening it to the blade.

CAT.#	THICK	ALLOY	PRICE
K363	3/16"	Brass	6.95
K364	3/16"	Stainless	6.95

Gift Certificates, Knife Projects and other knifemaking supplies online.

Download our digital catalog online or request our full color catalog for only \$5.00 postage.

JANTZ • KNIFEMAKING.COM • 800-351-8900

ability to illuminate dark sight pictures will prevent missed and dangerous shots.

To equip my Browning Buckmark with a weapon light, I enlisted the help of my local gun shop, JoJo's, to take a small, radiused section of Picatinny rail and attach it under the barrel. The guys at the shop drilled and tapped the barrel and cut down the Picatinny section to secure my Streamlight TRL-1s weapon light.

In this position, I can use my support hand to temporarily activate the light, or I can use my trigger finger to switch it on before moving back to high index or inside the trigger guard for my shot. I prefer this manner of light activation to pressure pads with exposed wires, because they are less streamlined, can drift from where they are placed and can snag, leading to damage.

RED-DOT VS. OPEN SIGHTS

For many years, I believed basic sight alignment with front post and rear notch to be superior for all applications. After speaking to numerous trainers, in addition to doing my own research and running drills with both red-dot optics and traditional irons, I believe the best option for my intended purposes is a micro red-dot sight such as the Burris Fastfire series.

A small red-dot sight reduces the number of points in a proper sight picture from 3 to 2. Instead of aligning the target with the front post and the rear notch, it is only necessary to place a single dot on the intended target. At night, when used in conjunction with a weapon light, the red-dot sight really comes into its own and is highly visible against dark backgrounds.

To mount the red-dot sight on my Browning Buckmark, I purchased a new, one-piece Trail Lite Picatinny base from Tactical Solutions that replaces the rear sight. It has an adjustable rear iron sight, in case I need to remove the red-dot optic. This new rear sight is paired with an enhanced fiber-optic front sight from HiViz Shooting Systems that completes my backup sights.

IMPROVED GRIP

Assuming you are surviving in adverse conditions, the weather will surely take a turn for the worse. It's possible that it could be cold and wet, and you need all the help you can get retaining your firearm. Slick grips can be improved with skateboard deck tape, and molded plastic grips can be stippled with a soldering iron. Aftermarket grips made from checkered aluminum, Micarta and G10 are also available and are extremely durable.

THE SUPPRESSED .22 PISTOL

If you live in a state where class III firearms/devices are legal, you might consider purchasing a suppressor for your .22LR survival pistol. After filling out the application, getting fingerprinted and paying the required \$200 ATF tax stamp, all you have to do is wait for the paperwork to come back. Understand that this process will likely take months.

Once the paperwork is in hand, all that is required to mount a suppressor is a 1/2-inch x 28mm thread at the end of your barrel. Many manufacturers have this barrel threading standard on their pistols for use with muzzle breaks used in competition. If not, any competent gunsmith



will be able to remove your barrel and cut this threading into it. You might need to remove the front sight and have it moved back on your barrel, as I did on mine. When the suppressor is not used, a thread protector is placed over the exposed end.

A .22LR pistol is easily suppressed to a sound level comparable to a hand clap; this has tactical advantages if one is avoiding detection. The slight increase in barrel-forward weight, combined with the reduced speed of exiting gasses, makes the felt recoil almost nonexistent. Because the .22 is a small round, the size of a suppressor is usually kept to easily carried dimensions—no larger than a Surefire 6P flashlight. A double-stack pistol magazine carrier can carry the suppressor and multiple spare magazines into the field.

The suppressor I chose for my personal survival pistol is the Gemtech Outback II. I opted against an integrated suppressor, because I wanted the ability to take the suppressor off my handgun and put it on a threaded .22 rifle if needed.

When threaded onto my Buckmark, the overall length increases, but the pistol is not unwieldy. I must exercise caution carrying this in some places where it is prohibited by local law. However, if discrete discharge of a firearm is necessary, I have the perfect setup to address my needs.



BRING IT IN FOR A #SMOKEYBEARHUG

SHOW SOME LOVE TO THOSE WHO HELP PREVENT WILDFIRES.

Only **YOU** Can Prevent Wildfires.

SMOKEYBEAR.COM





(above) The Browning Buckmark, equipped with red-dot sight, weapon light and sound suppressor, is ready for survival hunting.

(opposite) The Browning Buckmark with a 5.5-inch barrel is capable of excellent accuracy. This is a five-shot group from a bench rest at 10 yards.

Other modifications include wrapping the existing grip with tennis racquet, hockey or athletic tape, although some complain this modification is not visually appealing. Solid plastic and rubber grips can be sanded down for a thinner profile. Because everyone's hands will vary in size and grip circumference, a handgun grip should be customized to the individual user.

HOLSTER AND CARRY METHOD

With these modifications, it will be difficult to find a holster. However, this type of pistol is not meant to be carried concealed or drawn rapidly. It is meant for deliberate hunting where the firearm is out and ready to be used. My personal .22 survival pistol is carried into the field in a simple, zippered pistol case. At the very minimum, I carry a backup magazine or two, in case the magazine in the pistol is accidentally dropped and lost.

Much as a rifle in hand is faster to get into action than a rifle slung over the shoulder, this pistol is more likely to be carried in the open. The animals you will be hunting will not wait for you to draw your firearm or take it out of its case. If you are serious about putting meat on

“WITH A HIGHLY ACCESSORIZED PISTOL, THERE WILL BE A TEMPTATION TO SEND A LOT OF AMMUNITION DOWNRANGE FAST, BUT NEVER SACRIFICE BASIC TRIGGER CONTROL AND SIGHT ALIGNMENT.”



your table, don't leave anything to chance. Be prepared ahead of time: Have your firearm in your hand.

TRAINING

Having a dedicated survival .22 will not make you a better outdoorsman; training with it will. Silhouettes of common game species can be printed out and brought to the range. When I am at the range, I usually put multiple targets on a single cardboard backer representing animals crowding together.

Practice putting your firearm on target from a low-ready position and also practice from a rest, such as your pack, rolled shirt or a poncho liner. Learn to shoot and reload with your strong hand *and* the weak hand, in case the strong hand is injured. With a highly accessorized pistol, there will be a temptation to send a lot of ammunition downrange fast, but never sacrifice basic trigger control and sight alignment. Doing so could result in bad muscle memory being ingrained during the process.

Remember: This pistol will be dedicated to survival use; train with it as if your life depends on it—because one day, it might.



AMMUNITION CARRY

» Because .22LR ammunition is lightweight and compact, it allows the survivor to carry a good supply. But, as light as it is, it can be a real annoyance carrying loose rounds in the field. Modern manufacturing produces excellent ammunition, but these soft lead bullets can deform if they aren't protected.

The finest survival pistol in the world becomes an ineffective firearm if its ammunition is damaged or tainted. Whether your .22 firearm is used regularly or stored long term, in case of an emergency, here are three ways to ensure your ammunition goes "bang" when you squeeze the trigger.

BAG IN A BAG

My number-one method of carry for .22 LR ammunition is best described as a "bag inside a bag." I utilize Aloksak bags to provide water resistance. The ammunition placed inside this bag is loose, and I mark the approximate number of rounds with a permanent marker on the outside.

This ammunition is rotated out regularly and not meant for long-term storage, so I am willing to accept the chance a head will be deformed here and there. The Aloksak bag is then placed inside another bag, usually a zippered pouch, which I can wear on my belt or pack strap. Also inside this pouch is a small cleaning kit for the pistol or rifle.

FOAM "TIN"

Many tins can be used to carry spare .22LR ammunition. These need not be the Altoid variety nor made out of tin. Plastic cases, round "tins" and other small, hard-sided cases will protect ammunition from damage. To further ensure the ammo is taken out in the same state it was put in, a small piece of closed-cell foam should line each side of the case. Packaging foam will also prevent the beans-in-a-tin-can sound as you move about in the field.

VACUUM-SEALED BAGS

This method is very straightforward. Using a countertop vacuum sealer, the ammunition is carefully inserted to prevent tips from poking outward. For those concerned with keeping track of what is bagged, a small, handwritten label can be placed facing outward through the clear panel to catalog the ammunition inside, the date packed and quantity.

The only drawback to this manner of carry is that the bag can't be resealed once opened. A small patch of duct tape can be applied to the outside for use as a makeshift seal to remedy this problem. Also, since this vacuum packing will seal out *and* seal in moisture, small desiccant packets can be thrown in for good measure.



DOUBLE DOWN & SAVE BIG

Two is Better than One



ONLY
\$30.00

Take advantage of this special offer and get 1-year digital subscription to *American Survival Guide* (12 issues) with a 1-year digital subscription to *World of Firepower* (6 issues) and save up to 81% off the cover price!

TO SUBSCRIBE:

Log on to: www.engagedmediamags.com/eem-3067

- No more waiting!
- Instant access to all the latest issues
- Safely store all past issues purchased
- Universal access across all devices
- Easy to use anytime anywhere

This magazine can be read on:



For a full listing of our titles, visit www.engagedmediamags.com/digital today!

*this offer is available on www.engagedmediamags.com only.

For questions on downloading the magazine apps contact 800-764-6278



review.01.16

A MORE POTENT PEOPLE'S PISTOL

H&K STEPS UP THE POWER LEVEL WITH THE NEW VP40

Text and Photos by **Garrett Lucas**

IT WASN'T TOO LONG AGO THAT HECKLER & KOCH CREATED SOME BUZZ AMONG GUN ENTHUSIASTS WITH ITS NEW STRIKER-FIRED PISTOL, THE VP9. Some of the admired features of the new pistol were the smooth trigger pull, ergonomic design and a price that was actually competitive with similar models on the market. I've had several H&K pistols over the years, and I always ended up paying right at \$1,000 for each of them.

However, the MSRP of the new VP9 is \$719, with the street price running around \$650. The VP9 was an instant hit and definitely lived up to its moniker, "The People's Pistol," because its price made it more accessible to the average handgun buyer.

As with most other pistol introductions, the next step was to offer it in a different caliber, and the natural progression was to the .40 S&W caliber.

So, it wasn't long before I had an H&K VP40 in my hands for the first time, and I was ready to hit the range. I had already played around with a friend's VP9, and I really liked the feel of the pistol, especially the trigger pull. Based on what I could remember, the trigger pull of the VP40 was every bit as good as its predecessor.

That said, the VP40 does not have the lightest or smoothest trigger pull of all striker-fired pistols. I tried one recently that had an extremely light pull of about 4.2 pounds. Nevertheless, it might surprise some that I actually prefer H&K's trigger pull in the long run. You can go too light with a trigger pull for a gun that's meant for self-defense or combat. With the adrenaline pumping, it's just too easy to accidentally discharge a weapon with a very light trigger.





he VP40 comes in a compact case full of goodies, including three back straps (including the one on the pistol) and six side panels for the grip, along with two magazines and a magazine loader.

“THE VP40’S 5.4-POUND TRIGGER PULL STRIKES A GOOD BALANCE BETWEEN HAVING A PROPER TRIGGER PULL FOR A COMBAT WEAPON AND KEEPING THE PULL SMOOTH AND REASONABLY LIGHT.”



The VP40's 5.4-pound trigger pull strikes a good balance between having a proper trigger pull for a combat weapon and keeping the pull smooth and reasonably light. Another thing H&K got right with the VP line of pistols is its fantastic ergonomics, which are highly influenced by the company's P30 line of pistols.

Like the VP9, the VP40's MSRP is \$719 for the base model—yes, the *base model*! H&K is now offering a Law Enforcement model with an MSRP of \$819. The reason for the \$100 bump? H&K will include three magazines in the L.E. package and is now offering real night sights with tritium inserts rather than luminescent dots that have to be charged with a separate light source. Although not a technological feat, it's the right step forward for the company's latest-generation line of polymer pistols.

The night sights are the Tru-Dot model made by Meprolight, and the rear sight is of the steel, claw-type variety that makes racking the



The H&K VP40 in all its glory. On display are the terrific build quality, ergonomic aspects, an accessory rail and the control levers for the magazine release, slide release and, finally, the takedown lever.

slide with one hand very easy to do on a boot heel, table or other hard edge that has the strength to support racking the slide. This is a great improvement over earlier VP product line models. I've checked online, and rumors abound that the same night sight option is also being introduced on the VP9.

The dimensions of the VP40 make it sized more for service or duty rather than for concealed carry—although with the right holster, concealed carry is still an option. It has an overall length of 7.34 inches, a weight of 26.56 ounces with an empty magazine and a barrel length of 4.09 inches.

One interesting aspect is the height of the VP40, which is 5.45 inches. It's basically the same height as other polymer pistols in this category, but it only offers a 13-round capacity for .40-caliber rounds, where other, similarly sized, pistols' magazines have a capacity of 15 rounds. I'm still mulling that over in my mind.

Is two rounds that big a difference? I guess it depends on your mindset. If you're thinking in terms of concealed carry, there are smaller .40-caliber pistols on the market that have magazine capacities of 13 rounds and are eminently

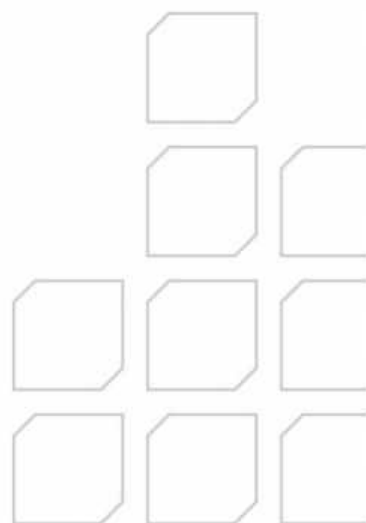
more concealable. But, if you're just looking for a defensive pistol with H&K's incredible reliability and the truly exceptional ergonomics of the VP40, the trade-off might be worth it to you.

USER FIT

Speaking of ergonomics, one reason for people's affection for the VP pistol line is that it's very customizable for the individual. Included in the box are three different back straps and six side panels that not only determine how far back in the shooter's hand the grip will sit, but also how much it will fit the user's palm. Because of all these options, you shouldn't have any problem finding the perfect fit.

Removing and replacing the various side panels and back straps is a fairly easy process. First, punch out the pin holding the back strap and then remove the back strap. Once the back strap is out of the way, you can then slide off the side panels to replace ones that will fill your palm better. Then, simply reverse the process, and you are done.

While we're working on the gun, takedown of the VP40 is as easy as it gets. Simply pull back the slide until the semicircle cut into the





A view from the front of the VP40 reveals the serrated face of the trigger guard, cocking serrations on the slide and the ambidextrous slide release on the right-hand side of the pistol.

“H&K ... IS NOW OFFERING REAL NIGHT SIGHTS WITH TRITIUM INSERTS RATHER THAN LUMINESCENT DOTS THAT HAVE TO BE CHARGED WITH A SEPARATE LIGHT SOURCE.”

slide is above the take-down lever. At that point, flip the lever down and push the slide forward until it comes off the gun. After that, it's a simple process to remove the captive recoil system, along with the barrel, for cleaning.

TIME FOR TESTING

Despite all the attractive options a firearm might have, it really comes down to how accurate and reliable it is when you take it to your own little proving ground to wring it out a bit.

A long while ago, I didn't have the best luck with .40-caliber pistols I had purchased. I think these pistols were still in the teething phase, and no one had quite gotten the formula right

for accuracy. Plus, the .40-caliber is a higher-pressure round and can exact a toll on your firearms more quickly than other calibers. Even so, the .40 S&W rose in popularity due to the crime bill signed into law by President Clinton and his ilk in 1994.

The Wonder-Nine pistols lost a little of their fan base during that time, because if you're limited to only 10 rounds, why not make those rounds as big as they can be? This drove a resurgent popularity in .45 ACP pistols and the fairly new .40 S&W models.

Me? Because of the issues I had with the accuracy of .40 S&W pistols, I streamlined my pistols to either 9mm or .45 ACP. With modern hollow-point designs, there's truly not a significant difference in performance in the loads,

even though I do still think the bigger the hole, the better.

As a result, I didn't have a huge stash of .40-caliber ammo on hand when the VP40 arrived, although both HPR and Hornady helped me out with the ammunition I needed to complete the review. HPR provided a nice supply of its .40 S&W 180-grain JHP loads, and Hornady provided some of its premium ammunition line, including its 180-grain American Gunner FTX bullets.

Shooting the VP40 was a pleasant experience. Despite the higher pressures of the .40 S&W loads, recoil was easy to manage with the custom fit of the grip and the low-bore axis of the pistol's design. The gun had a little more snap to it than a typical 9mm or .45 ACP pistol, but not enough to make any significant difference.

Both brands performed similarly with regard to accuracy. At 25 yards, it was easy enough to hit vital zones, with accuracy running at about 2.75 to 4 inches. But, given H&K's reputation, this wasn't the best I thought it could do.

So, on the way home, I stopped at my local gun store and looked around to see what it had. I came across a box of Federal 165-grain Hydra Shok bullets and a box of Hornady's Critical

The new and improved rear sight on the VP line, as seen on this VP40, sports a claw front face, which makes racking the slide with one hand much easier on objects such as tables, boot heels, etc.



Duty 175-grain Flex-Lok bullets. I figured I'd try those out and see if the bullet weight made any kind of difference.

SECOND TRY

The next time at the range, it was as pretty and cool as the first time. (I love autumn!) I quickly set up and tried out the new loads I acquired. The Federal 165-grain Hydra-Shoks performed closely but still opened up a bit. That left me with the Hornady 175-grain Critical Duty ammunition to try. The first five-shot group out of the box at 25 yards closed in at under 2 inches at 25 yards. Now, *that's* what I was looking for!

I don't know if it was the weight of the bullet or possibly a more aerodynamic profile with the flex tip, but out of the four five-shot groups I got from that box, two were 2 inches or under, and the other two were just a hair over 2 inches. Given that the shots weren't fired from a Ransom Rest, I was perfectly happy with those groups. It's just like any other firearm—you have to find the particular load it likes, and it seems the VP40 liked the 175-grain Critical Duty loads very much!



(left) The accessory rail for the VP40 is a Picatinny-style affair that makes it simple to add accessories such as lights and lasers—or both.



(right) A couple of things H&K really got right were the use of actual tritium night sights rather than a fluorescent dot, as well as the charging grips or "ears" at the rear of the slide. It gives the user something to hold onto while charging the firearm and makes the process easier for some.



Fieldstripping the VP40 is very easy: Simply retract the slide until the half circle is above the takedown lever, flip the lever down and pull the slide forward until it's off of the rails and the pistol.



Here, the VP40 has all its back straps and side panels removed, ready to be customized for the next shooter. From this point, the side panels go on first; the back strap follows. Once the pin is in place, the back strap stays in place and also locks the side panels in place.

“THE DIMENSIONS OF THE VP40 MAKE IT SIZED MORE FOR SERVICE OR DUTY RATHER THAN FOR CONCEALED CARRY ...”

OBSERVATIONS AND FINDINGS

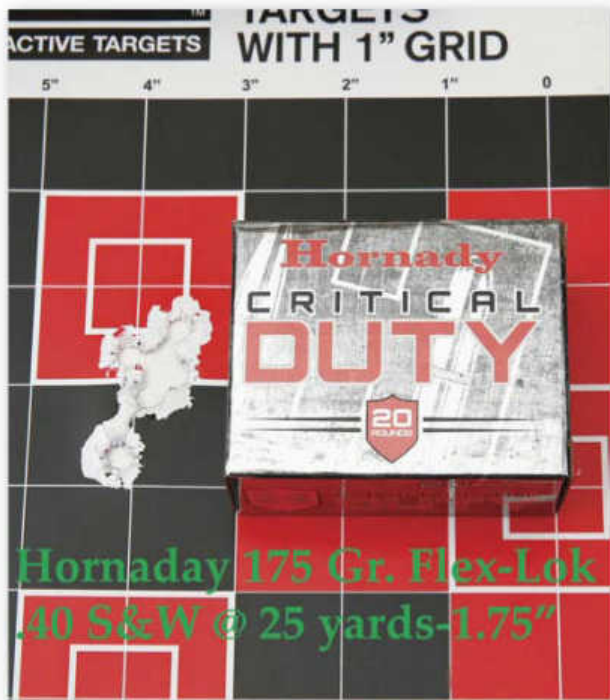
After the VP40 cooled off and the smoke cleared, I had time to look over my notes about the various aspects of the pistol, and it was obvious that H&K had another winner on its hands. While I am not particularly attached to the .40-caliber, I can certainly appreciate what H&K is doing with its line of pistols.

This company is still producing extremely reliable and highly accurate pistols—but it is doing so while keeping the price low enough to compete with other manufacturers of similar pistols. The H&K brand is well regarded and will draw people close enough to take a look. And the price is what will close the sale.

The one thing I don't think H&K got 100 percent right is the inside of the trigger guard. There is a large, hollow area carved into the trigger guard beneath the trigger. This leaves edges on the inside of the trigger guard, and my index finger was constantly being irritated by running along the edge. It's not sharp, but after shooting enough rounds, I had a red spot that was about to become a blister.

HECKLER & KOCH VP40 SPECIFICATIONS

Caliber	.40 S&W
Overall length	7.34 inches
Barrel length	4.09 inches
Height	5.45 inches
Width	1.32 inches
Sight radius	6.38 inches
Weight	25.56 ounces with empty magazine
MSRP	\$719 (\$819 for L.E. package)



After trying a few different brands and weights, the best group out of two extended shooting sessions was achieved with Hornady's 175-grain Critical Duty ammunition, which has the combination of the Flex-Tip, along with the company's Interlock bonding that mates the copper jacket to the core.



One thing I didn't particularly care for was the groove carved out of the trigger guard below the trigger. My index finger kept rubbing against the edge, and it was very irritating. This is the only area of the physical design I did not feel was up to par.

CONTACT INFORMATION

Heckler & Koch
5675 Transport Boulevard
Columbus, Georgia 31907
(706) 568-1906
E-mail: cs@heckler-koch-us.com
Web: www.heckler-koch-us.com

I believe H&K did this to keep the magazine release fairly high with the trigger guard so that it's easy to manipulate. To do that, the area was carved out to give the trigger enough room to go through its entire motion. What I don't understand is why the trigger guard is not just opened up to let it drop lower under the trigger so this isn't an issue.

As far as amenities go, the VP40 is tough to beat. It has ambidextrous controls for both the magazine and the slide release. It offers well-built night sights, complete with tritium inserts if you upgrade, and it has some of the best ergonomic build qualities you'll find on any pistol. I only know of one other pistol that would give the VP40 a run for its money in that regard.

Should you get the VP40 for your own defensive needs? Well, do you like the .40-caliber? Do you like having an extremely accurate weapon that will place your shots where needed? Do you want an extremely reliable pistol that has a great trigger pull to boot? What about ergonomics and a fairly low bore axis? Do those mean anything to you?

If you answered yes to any of these questions, you need to get moving and find a VP40 to check out for yourself! **ASG**

\$6.99/100FT

Genuine 550 lb. Type III, 1/8" diameter nylon Paracord with a seven strand core. 40 colors available.



PC101 White



PC102 Black



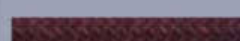
PC103 Olive Drab



PC104 Coyote Brown



PC106 Charcoal



PC108 Burgundy



PC116 Colonial Blue



PC118 Neon Orange



PC123 Solar Orange



PC127 Desert Camo



PC128 Foliage Camo



PC140 G.I. Camo



PC139 Galaxy

Side Release Buckles

Durable plastic side release buckles used to complete paracord bracelets. Available in 3/8" and 5/8" sizes.



PC993	3/8" (PKG OF 10) Assorted	6.95
PC995	5/8" (PKG OF 10) Assorted	6.95

JANTZ
1-800-351-8900
knifemaking.com




how-to.01.16

Critters and Predators

→ DEALING WITH ANIMALS IN THE MOUNTAINS

By Larry Schwartz

A white wolf stands in profile, looking down towards the ground. The wolf's fur is thick and white, with some grey shading on its face. In the foreground, there are several large, bleached animal bones, including what appears to be a ribcage and a skull. The background shows a hazy, mountainous landscape under a soft, golden light, suggesting dawn or dusk.

**“... MAKE SURE
YOU KNOW THE
STEPS TO TAKE TO
PROTECT WHAT
IS PRECIOUS IN
YOUR LIFE.”**

MANKIND HAS DEVELOPED THE ABILITY OVER THE MILLENNIA TO ADAPT TO THE ENVIRONMENT. One of those environments is the mountains. Sometimes, we bend the mountains to our will, but many times, we have to change both ourselves and how we deal with mountain living and exploration.

This is true when it comes to weather but even more so when it comes to the wide array of animals—both large and small—that live in the mountains. We have moved into their neighborhoods, and we need to learn their rules if we are to survive there. The challenges we face can be threats to our safety, as well as to that of our pets and livestock, or they can be simple annoyances, as I'll describe in this article.



PHOTO COURTESY OF WWW.WIKIMEDIA.COM

The black bear and grizzly bear are the largest predators in the mountains and should be given a wide berth when possible. When you can't, make your presence known, and don't appear to be afraid or submissive. And, whatever you do, don't get between a sow and her cubs!

LET'S KEEP IT CLEAN

Whether we are living on a homestead, tramping across the backcountry on a hunt or just enjoying a weekend of backpacking and camping, one thing is a constant: We will have some food with us. And food, even if it is the blandest of culinary treats, has a smell to it. Every animal on the mountainside can smell it and follow the scent to wherever it is, bringing that animal into close proximity with you. For this reason, it is imperative to take care with our foodstuffs, regardless of where we are. It is just as important on the homestead as it is in the backcountry.

Three years ago, I forgot that lesson while on a weekend backpacking trip with my son. We had hiked into a national forest, set up camp, tossed our backpacks into our tents and started making dinner. After a nice backcountry meal, we sat around the campfire and did our best to solve the world's problems.

When we made our way back to the tents, I found that a nocturnal visitor had swung by, drawn by the aroma of the breakfast sandwiches I had hidden in my pack as a surprise for breakfast in the morning—a rookie mistake, but I really paid for it.

The raccoon had chewed its way through the wall of my tent and then through the side pocket of my pack, removing the three sandwiches, eating part of two of them—and then, it added insult to injury by leaving a

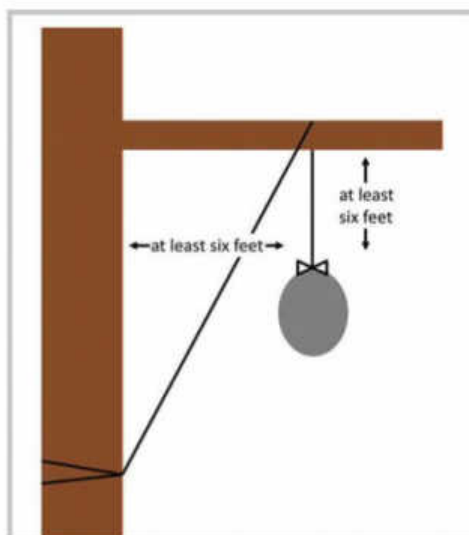


IMAGE BY LARRY SCHWARTZ

The best way to keep your food and other "smellables" away from animals such as bears and raccoons is to hang it where they can't get to it.

"gift" on top of my sleeping bag. Needless to say, I showed my son how to hang a bear bag before we went to sleep that night.

Taking care of "smellables" isn't a difficult task, but it is one that we need to keep in mind whenever we are in the backcountry. Whether it is food, garbage, soap or anything with a scent, animals will be able to smell it, and they will be drawn to it from a great distance. This applies to every animal on the mountain, from squirrels and raccoons to foxes and bobcats—and especially wolves and bears.

There are a number of ways to keep smellable foodstuffs away from you, as well as from the animals they attract:

- > A **bear canister** is an extremely rugged but fairly lightweight plastic container with a lid that is secured to the top with a mechanism that animals such as bears and wolverines cannot get open. These canisters are rugged and secure, but they are not scent proof. So, once you get to camp, store them a good distance away; and if an animal goes for a canister, it will not be near you and your campsite. Hiding canisters under large rocks or logs will not keep a bear from dragging it off, but it will keep smaller animals at bay. Hanging the canister in a tree, as described below, will also help keep animals from walking off with them.
- > Hanging a **bear bag** that contains your food and other smellables is another great way to keep animals, and not just bears, from your goodies. Throw

If food is left out, an animal will find it. If you don't want to share your dinner or dessert with the local wildlife, keep it all safely stowed away.

PHOTO COURTESY OF WWW.WIKIMEDIA.COM

"THE RACCOON HAD CHEWED ITS WAY THROUGH THE WALL OF MY TENT AND THEN THROUGH THE SIDE POCKET OF MY PACK, REMOVING THE THREE SANDWICHES ..."

A bear canister is an effective way to keep your "smellables" safe from large animals such as bears, but it also works for smaller animals.

a length of paracord with a weighted bag on one end up and over a tree branch at least 20 feet above the ground. After you get the weighted bag over the branch, lower it down to the ground and tie the bag with your smellables to the rope. Then, haul it back up and tie the rope off on the trunk.

- > Regardless of where you are, whether at a campsite or your homestead, keep your garbage in a **bear-proof trashcan** that has a latch and can't be ripped apart. The can must seal tightly, because small animals can get through very narrow openings.
- > Store your food above ground in a sturdy, **elevated cache**. Place it high enough so that animals cannot reach it, and construct it with a sturdy door or opening that animals cannot open or break through.
- > A good practice is to use the **"bear-muda" triangle** when setting up camp or laying out your homestead. The legs of this triangle should be about 100 feet long. Your smellables, cooking area and sleeping area will each occupy one of the points of the triangle.

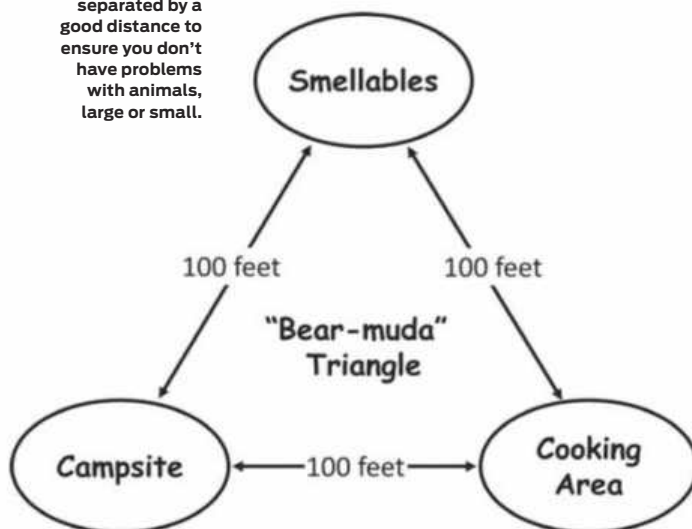
PROTECTING YOURSELF FROM PREDATORS

Our ability to make tools puts us at the top rung of the food chain, but there are many large predators just below, and they didn't need any tools to earn that spot. We are in their domain. We have moved

Elevated food caches such as this one in Alaska are effective tools that have been used since the 1800s to keep food safely stored and away from large and small animals looking for an easy meal.

(right) **Bear-proof** trash containers are rugged enough to withstand the onslaught of a hungry grizzly bear and have locking mechanisms that will frustrate even the smartest ursine.

(below) The **"bear-muda"** triangle is an easy way to remember to keep your camp, food and cooking area separated by a good distance to ensure you don't have problems with animals, large or small.



Underground storage such as this root cellar is a great way to store food where it cannot be seen or smelled by animals.

into the areas in which they live, sleep, eat and procreate. And they know that domain like the back of their hands (or their paws) far better than we do.

For those reasons, when we are in the backcountry, away from home and hearth, we need to equip ourselves so that we can survive an attack.

The first task is to learn and understand predators' habits and motivations. Knowing your opponent is always a good idea, whether you are a football coach, military commander or just someone who spends time in the backcountry. Learn where these predators like to sleep, what they like to eat, what they are afraid of and what makes them aggressive.

Space considerations don't allow me to cover this for every single predator you might find on a mountain, but an Internet search will give you plenty of information. Read up on wolves, black bears, grizzly bears, coyotes, lynxes, bobcats, wolverines and mountain lions.

After you know your opponent(s), take steps to avoid situations that might put you in close proximity to them. Stay aware of your surroundings by watching for changes in the weather, what the birds are doing or not doing, what smaller animals are



PHOTO COURTESY OF COUNTER ASSAULT

“CARRY YOUR TOOL OF CHOICE WITH YOU—WHETHER IT’S A RIFLE, SHOTGUN, HANDGUN OR BEAR SPRAY—WHEN YOU ARE AWAY FROM THE HOMESTEAD TO HANDLE WHAT-EVER SITUATION COMES UP.”

Bear spray is an effective tool for keeping large animals such as bears at bay if you find yourself in a close encounter. Keep in mind that this spray is a mist, so move to a position where you will not be spraying it into the wind.

Several breeds of dogs, such as the Great Pyrenees, Kuvasz and Akbash, have proven highly effective at protecting livestock from predators.

PHOTO COURTESY OF WWW.WIKIMEDIA.COM



01.16

Popular Breeds of Livestock Guard Dogs (LGDs)

- Bernese Mountain Dog
- Great Pyrenees
- Komondor
- Akbash
- Anatolian Shepherd
- Sharplaninatz
- Kuvasz
- Karabash
- Maremma

doing and what you can smell on the air. Remember that scent travels with the wind, so “watch” into the wind with your nose, and watch with your eyes downwind.

If you are in bear country, make noise by singing, talking, shouting or wearing bear bells. Stay away from areas that attract large predators (salmon-spawning streams, hunting kills or, in the spring, berry patches, which attract bears coming out of hibernation).

Carry your tool of choice with you—whether it’s a rifle, shotgun, handgun or bear spray—when you are away from the homestead to handle whatever situation comes up. Keep in mind that none of these will work as they do in the movies. Even the best-placed shot (unlikely in a stressful situation such as an attack) will not drop the animal in its tracks. If it is close, it can still get to you and hurt you, so be ready to fight with your hands.

KEEPING LIVESTOCK AND HOMESTEAD SAFE

You need to take steps to keep your family, pets and livestock safe on the homestead, even if that homestead is in a suburban area that borders wooded areas. Common sense rules the day here, but there are some specific things you can do to help reinforce your perimeter.

If you don’t need to graze your livestock in open mountain meadows, keep them in large,

fenced-in areas big enough for them to move away from any predator that gets inside the fence but that can also keep large predators out. Fenced-in areas should have a buffer zone between the fence and any cover so you and your animals can see any predator sneaking up on them.




PHOTO COURTESY OF WWW.WIKIMEDIA.COM

A relatively recent advance in protecting livestock is the use of livestock guard dogs (LGDs) in addition to, or instead of, sheepdogs, which are livestock herding dogs (LHDs). LHDs are not bred to protect the animals they are watching; they only keep them together and move them based on directions from their owner.

LGDs, on the other hand, are bred and trained to watch and protect the animals. There are several breeds used to guard North American herds, many of them coming from European countries. (See the sidebar on the previous page for a short list of LGDs.)

Pets can be kept around the house, but don't put them on a chain, which might prevent them from getting away from a predator or defending themselves if they wind up in a fight. Teach them to bark or alert when they smell or see large animals.

Life in the mountains is full of wondrous views and experiences, and they should all be enjoyed. Just make sure you know the steps to take to protect what is precious in your life. This will ensure a happy existence and a positive communion with the wilderness, and it will also help you be ready for moments that could threaten your very existence. 

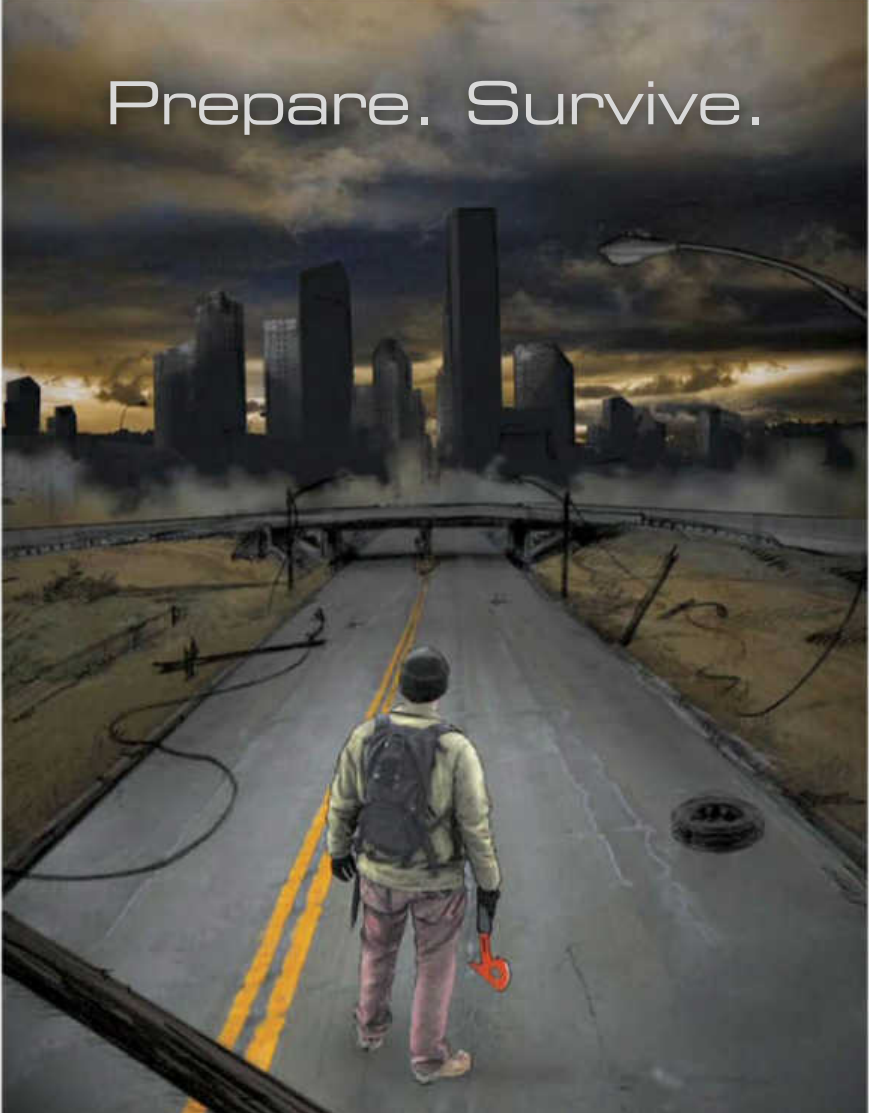
Smaller predators such as the fox make up in cleverness and determination what they lack in size. This one is trying to figure out how to open a rabbit pen.



“LEARN WHERE THESE PREDATORS LIKE TO SLEEP, WHAT THEY LIKE TO EAT, WHAT THEY ARE AFRAID OF AND WHAT MAKES THEM AGGRESSIVE.”




Prepare. Survive.



T.A.S.K.
Tactical Apocalypse Survival Kit
The all-in-one solution for any disaster scenario.

Learn more at lansky.com • 800-825-2675 for FREE catalog



LANSKY
SHARPENERS



how-to.01.16

Survival Hammock Hacks


16 TIPS FOR MANAGEABLE AND COMFORTABLE HAMMOCK SLEEPING *By Kevin Estela*

SLEEP IS PERHAPS THE MOST UNDERRATED ASPECT OF A SURVIVAL SITUATION. Psychologically, it is needed for the mind and body to recover from stress. Even on a recreational camping trip, an uncomfortable night out can ruin the next day's enjoyment of what should be fun in the great outdoors.

It was just that, an uncomfortable experience—waking up in 3 inches of water in my tent—that elevated my thinking and turned me on to hammock camping. Since then, I've “converted” and spent countless nights swinging from the trees in perfect slumber. I firmly believe the best nights out are those spent in a hammock.

Of course, for the beginner, there is a definite learning curve before reaching the “zen” of slumber. Fortunately, there are great hammock hacks to ensure your night is devoid of issues and full of zzz's.

PHOTO BY JASON JONES TRAVEL PHOTOGRAPHY / GETTY IMAGES



**"EVEN ON A
RECREATIONAL
CAMPING TRIP, AN
UNCOMFORTABLE
NIGHT OUT CAN
RUIN THE NEXT
DAY'S ENJOYMENT
OF WHAT SHOULD
BE FUN IN THE
GREAT OUTDOORS."**



(main photo) The author's Clark "Jungle" hammock with underquilt in the early-spring weather of British Columbia (inset) An underquilt extends the seasonal use of your hammock into colder weather. Paired with a good sleeping bag or blanket, your hammock becomes an incredibly warm option in cold weather.



Support straps should not be too taut. An approximate angle of 30 to 40 degrees is recommended.

1. GROUND CLOTH

It's possible to sit in a hammock sideways to remove your shoes at the end of the night. It is much easier to stand on a ground cloth—a heavy-duty space blanket is my choice—and take your shoes off without the balancing act. The ground cloth also serves as a lost-and-found for any gear that falls out of your pockets

as you prepare for a night's slumber. Using a light-colored ground cloth also makes finding dropped articles easier. Make sure it does not extend past your tarp to prevent water from channeling down onto your gear.

2. DRIP RINGS

Hammocks are virtually waterproof—provided a quality tarp is used—but the vulnerability lies in the webbing attachment to the tree. Water can creep down webbing and cordage unless some sort of mitigation device, such as drip rings, is used. These divert water away from the hammock and, as the name implies, drop water to the ground. Pieces of paracord or webbing can be tied into the hanging straps to guide water away from the hammock body.

3. HOW'S IT HANGIN'?

A hammock should be comfortable when you lie in it, but this is highly dependent on the way it hangs. If it is not even, you will slide toward your head or feet. If your feet are too high, they will not circulate blood as easily and get cold. If your head is too high, you might have discomfort in your neck. The magic number

most hammock campers agree on is 30 degrees of strap from hammock to tree in relation to the ground. If you find the next daisy chain loop creates too little or too much of a change, simply twist the location of the cordage around the tree for fine adjustment.

4. WATER COLLECTION

Your tarp not only shields you from the rain, it also aids in collecting water that can be used around the camp. When configured in a diamond pattern, the points of the diamond running to the side of the hammock body can be angled downward. This point will serve to funnel water into a water bottle, pan or bucket. It is also constant “camp tap water” when you need to rinse off a mess kit or toothbrush while ducking for cover in the rain. The water collected may have pollen or small particulates in it, but it is generally safe to drink.

5. STRAP STRETCH

During the course of a night, a hammock can take on a very pronounced “V” shape if the suspension straps are dynamic and have stretch.

(right) Tree straps protect the trees your hammock is attached to and make securing your hammock easier than round cord.



(above) Specialized hardware, such as Dutchware's Stingers and Flyz, make adjusting lines exceptionally easy.

(below) The hammock makes an excellent bugout bag option for a truck and leaves virtually no footprint after use.





Metal drip rings and other devices prevent water from running down the support lines into your hammock.



One of the most effective ways of preventing water from traveling down the suspension lines is a simple paracord knot.

The best suspension straps are made from static material that will not stretch over time. To get the best night's sleep, wake up in the same position you fell asleep (with good straps).

Some hammock campers use rock-climbing daisy chain anchors equipped with multiple loops for a nonstretch, customizable fit to the tree. After you set up your hammock, sit in it and then observe how it is hanging. You might want to adjust your straps after they stretch into their set point.

6. MOVING TREES

Trees breathe, and they sweat. When smaller-diameter trees are heavy with dew in the morning, they might have a slight lean to them. Set your hammock up in these and watch it stretch as the sunlight dries off the leaves and stands the trees more upright. Be careful you don't configure your sleep arrangement in a manner that will shift throughout the day. (I speak from experience on this one!)

7. UNDERQUILT

Any hammock camper can tell you the hardest place to insulate is underneath you. Sleeping



A paracord daisy chain can be tied to quickly adjust the hang of your hammock.

bag insulation is crushed, and wind has a way of finding its way along your backside. The solution is the underquilt that attaches to the outside of the hammock and can extend the hammock season to year round.

Underquilts are worth their weight in gold. The hammock body and the extra layer of insulation create a cocoon of warmth, thereby eliminating cold spots a sleeping pad alone can't do.

8. SLEEP DIAGONALLY

Unless your hammock is equipped with spreader bars, the natural tendency of the



Depending on how the tarp is configured, exceptional visibility is guaranteed in a hammock.

Unorthodox Setups

»The beauty of using a hammock for camping is the ability to set up where others cannot. Peruse any of the online hammock camping forums and you'll find photos of very unique setups. The hammock camper need not worry about what is on the ground. He also does not need to drop to the ground or adhere to elevation rules at all.

Hammocks have been used by the military in the jungle and the desert. Soldiers have suspended them from one armored personnel carrier to another and between other vehicles. Sailors, as far back as the age of exploration, used hammocks in the bowels of caravels and trans-Atlantic ships. As the ship swayed, the hammock occupant remained centered.

Hammocks can be set up stacked on top of one another using the same lashing points. It isn't uncommon to see "bunk bed" stacks where hammock camping is common. Hammocks can also be attached to cracks in rocks between crevices. Climbers have attached hammocks at great heights—with a supplemental safety tether attached to their harnesses, of course.

Given the narrow profile of the hammock, a large footprint is not necessary. And, in the jungle or swamp, setting up over wet ground isn't an issue.

When you first start using a hammock for camping, you forget that the usual rules don't apply to you. But once you realize the options open to you, you'll never want to be a ground dweller again.



Hammocks with attached pockets keep essential gear off the deck. All other gear can be laid out on a small tarp underneath your sleeping area.

fabric is to fold onto itself like a large taco. For larger sleepers, this can push shoulders forward and cause discomfort. The best solution is to lay diagonally in a hammock, just off of parallel. One shoulder blade and the legs will stretch the material open, preventing the dreaded wakeup with a stiff neck. Sleeping pads cut into a "mummy" shape fit better inside hammocks, but wide, rectangular pads help spread material apart for more room.

9. TOOTHPASTE

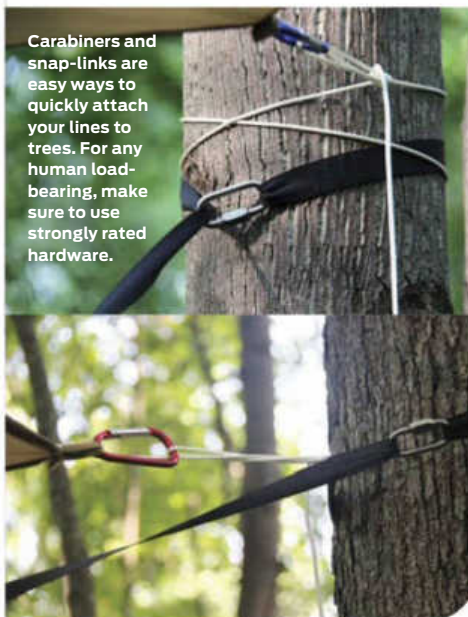
Toothpaste? Yes, toothpaste has a use. In the tropics, it is used to prevent ants and other creepers from crawling down the suspension straps. Whether it is the fluoride, the mint or the texture, it doesn't matter. Smear it on your straps, and you can sleep easy, knowing you have a barrier between the biters and you.

10. MOSQUITO PROTECTION

Mosquitos are not a worry when a hammock shelter is properly set up. The main cause for mosquito bites is sleeping directly against the mosquito netting or not having enough distance between your skin and the material of the hammock body. Make sure you do not roll off your sleeping pad, because ankles are a popular place for a mosquito "buffet."

If you are using your hammock as a stand-alone shelter, it can be treated with permethrin for protection from underneath and a headnet and gloves for biters above. Avoid spraying insect repellents with high concentrations of

Carabiners and snap-links are easy ways to quickly attach your lines to trees. For any human load-bearing, make sure to use strongly rated hardware.



deet on your hammock body. Deet will eat way at nylon and weaken the hammock fabric.

11. SNAP-LINKS FOR OVERHEAD STORAGE

In a hammock, there is only one place for your flashlight to go in the middle of the night: directly underneath you. Many hammocks have an internal line running the length of the body, which makes it easy to attach accessories overhead. Snap-links and carabiners work wonders for this and also make it easy to retrieve items



(above) In extreme weather, a tarp can be tied closer to the ground to block the wind and trap heat.

(middle) Brightly colored paracord makes finding insect netting zippers easier in the dark. Tied to the inside of your hammock, they will not be seen from the outside.

(below) The Warbonnet hammock has an internal "shelf" that is perfect for storing your equipment within reach throughout the night.

in the middle of the night. A small bag can be suspended overhead with all your essential EDC items.

12. TARP CONFIGURATION

A tarp can be suspended many ways to provide protection from the elements. Depending on your situation, it can be set up as an "A" frame for warmth, a diamond shape for improved visibility or a lean-to if there is a prevailing wind to one direction. Whenever possible, make sure to use paracord to create a ridgeline the tarp can lay over, rather than attaching it by a single grommet point. This will make a stronger shelter with less chance of failure. Experiment



with your equipment and find out which configuration works best for you.

13. DROPPING DOWN

In cold weather, the best solution is dropping lower to the ground. The tarp is configured into an "A" frame or sealed off as best as possible. Cold air is locked out, and the hammock takes on the appearance of a suspended tent. Additional insulation is added, including a Mylar blanket to reflect heat, as well as a hat and gloves to ward off drafts.

14. LEARN KNOTS

Knowing how to rig your hammock in the face of adverse circumstances prevents a lot of headaches. As you can guess, Murphy's Law dictates that the perfect setup of trees will not present itself when you are ready to set up your hammock. Using a Prusik knot, I've been able to attach my hammock to slick steel poles and square support beams inside buildings. In rocky areas, I've created knots to chock in cracks. In areas where the tree span was too great, I've extended my suspension ropes with ample lengths of paracord 550 doubled over in a sheet bend knot.

15. GET OUT QUICKLY

Tents are nice for easy access in and out. Hammocks, on the other hand, require more deliberate steps to enter and exit. To help you locate the zipper on your mosquito netting, a piece of brightly colored paracord can be looped around the zipper pull. Keep the zipper in a location easy to reach from any location in the hammock. You don't want it out of reach or hard to



Hammock Versatility

»The primary use of a hammock is sleeping in the great outdoors, but it has many other practical applications. I keep a hammock in my vehicle at all times, because I never know when I'll pull it out and when it will prove useful. Beyond nights in the outdoors, the hammock is versatile in many ways.

On many occasions, I've traveled with an ultralight hammock in my daypack. With a minimalist suspension cord set and hammock body, I have the ability to create a temporary seat in the outdoors or a place to rest after a long hike. My hammock has never raised an eyebrow of suspicion as it passed through airport security, and it has never taken up too much space to have to leave it at home.

Hammocks can also be used for gear storage. A lightweight hammock can keep equipment off the ground and organized. When putting your gear on the ground could lead to losing it, storing the gear at a more convenient level and all in one place is a great option.

Children love hammocks just as much as adults. In the outdoors (as any parent or guardian will tell you), keeping children happy is a constant battle. Kids gravitate to hammocks and will play in them for hours. Just make sure to suspend the hammocks low enough so that the kids won't get hurt if they start to swing in them.

grab when you want out quickly. In addition, when sleeping, wear your flashlight or headlamp looped around your neck or wrist.

There are many hammock camping systems on the market, and many of the components are interchangeable with one another: The tarp from one, the body from another and the mosquito netting from a third gives the user a custom setup, making the introduction to hammock camping very comfortable.

16. ONE LAST TIP

If you spend a lot of time in a hammock on extended trips into the woods, find a place in your home or garage to set it up when you get home. Your bed will feel "foreign," and you'll need some time returning to your normal sleep routine—or you may never go back to the ground again. **ASG**

Enable Your Ideas with a PCNC Mill

Discerning gun and knife enthusiasts know there's only one choice in CNC for affordable precision: the Tormach PCNC 1100. Take aim at your most demanding machining needs - engraving, milling, threading, reaming, and boring. Big or small, Tormach hits the bullseye to deliver for you.

Shown here with optional stand, LCD monitor, machine arms, and accessories.

Tormach PCNC 1100 Series 3 starting at **\$8480** (plus shipping)



Cantilever GoPro camera Picatinny Mount made by Strikemark, manufactured on a PCNC 1100.



Follow knifemaker John Grimsno as he makes his own knives with a PCNC 1100 on his web series, Knifemaking Tuesdays, at www.tormach.com/kmt.

www.tormach.com/asg

VIAGRA, CIALIS, LEVITRA, PROPECIA, VALTREX ONLINE!

- ✓ All FDA approved brand name medications.
- ✓ USA Pharmacies and Doctors since 1998.
- ✓ Order Online, by Phone (1-800-467-0693) or Mobile Device!

• Safe • Secure • Discreet



5% discount at Viamedic.com/guns

GEAR GUIDE

01.16

CROSSBOWS



Silent Shooters

Crossbows: The Bow/Rifle Hybrid That Offers the Best of Both Worlds

By Michael D'Angona

PART RIFLE, PART BOW. The crossbow is probably one of the most versatile hunting and personal protection “tools” everyone should include in their go-to survival cache. The crossbow is designed to be more compact and much less bulky than a standard compound or recurve bow. Its scope and trigger, like those of a rifle, target prey with deadly accuracy—but without the area-clearing bang of a gunshot. Similar to both rifles and bows, the crossbow is available in many different styles, specs and price ranges.

To purchase the crossbow that fits your needs, you should determine your intended use (hunting, personal protection or both) and then review all the accessory options you might want to add to create your own personalized weapon. From innovative self-cocking mechanisms and scopes to arrows and gear bags, your options are numerous.

Once your package is completely assembled, you will be ready to enjoy years of hunting—or, if things go unexpectedly bad in the world, you will have one more option to protect yourself and your family from those out to do you harm.



GEAR GUIDE

CROSSBOWS



\$1,600

www.barnettcrossbows.com

Barnett Razr Crossbow

This crossbow means business, plain and simple. With bolts traveling at a mind-staggering 400 fps, your target will have little or no chance of avoiding your shot. The Razr exhibits high quality throughout and is constructed of custom composite limbs, a CROSSWIRE string-and-cable system, reverse-cam integration and a retractable underarm support. The Razr Crossbow package includes a premium illuminated scope, convenient rope cocking device, three headhunter arrows and a premium Cross quiver. This is a serious crossbow for the serious hunter.

Specifications

- 400 fps
- Custom composite laminated wings
- Reverse-cam technology
- Integrated skinning knife
- Adjustable butt pad
- Mass weight: 6.5 pounds



\$449.99

www.amazon.com



PSE Vector 310 Crossbow

Good things come in small packages. That's exactly the case with the PSE Vector crossbow. This newly designed and re-engineered crossbow is perfect for youths and female shooters without sacrificing speed or power. The Vector delivers a superfast 310 fps shot, even with its unique and compact design. This powerful hunting or survival tool is built with a fully machined, 3-pound precision trigger system that prevents accidental or dry firings. It also features an upgraded cam system and built-in string stops. The PSE Vector is available in Mossy Oak Break-up or Black/Purple design.

Specifications

- 310 fps
- Auto safety trigger
- Five-bolt quiver
- Foot stirrup
- 4x32 scope
- Upgraded cam system



\$299

www.barnettcrossbows.com

Barnett Recruit Compound Crossbow

The Recruit makes a perfect intermediate crossbow for those wanting more than a single-hand pistol but not wanting to break the bank just yet on the highest-quality crossbow. At 300 fps, this crossbow can deliver the goods while you are hunting or when shooting at stationary targets. It features a lightweight frame that reduces user fatigue while still providing a solidly constructed weapon that will stand up to years of use and outdoor punishment. The useful rope cocking device makes reloads a breeze, and its adjustable butt pad provides comfort and fit for everyone's individual body type. Three 20-inch headhunter arrows and a three-arrow quiver are included to get you started on your outdoor adventures.

Specifications

- 300 fps
- Premium red-dot sight
- Rope cocking device
- Lightweight composite stock
- Anti-vibration foot stirrup
- Adjustable butt pad

Wicked Ridge Ranger Crossbow—Premium

Small-framed shooters now have a weapon that fits their particular physical requirements. The Premium Ranger Crossbow features an ACU-52 self-retracting rope cocking system that reduces draw weight by 50 percent, creating faster re-shoot time and reducing user fatigue. The Ranger package includes three carbon arrows with 100-grain practice points and a 3X Multi-Line scope. The Ranger Crossbow is decorated in Mossy Oak Treestand camo—perfect for blending into almost any surrounding environment. Whether for hunting, target shooting or personal defense, this crossbow can do it all!

Specifications

- 300 fps
- Self-retracting rope cocking mechanism
- Instant-detach three-arrow quiver
- Draw weight: 150 pounds
- Multiline scope
- Mossy Oak design

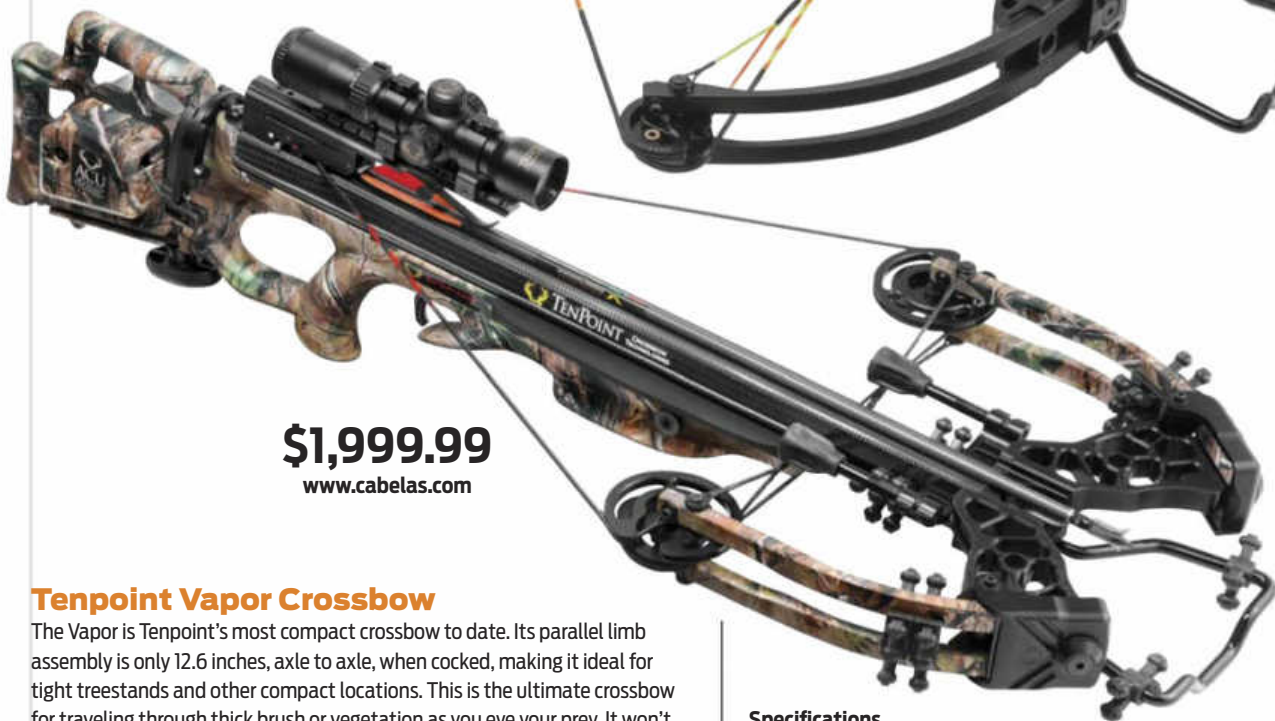
\$499.99

www.dickssportinggoods.com



\$1,999.99

www.cabelas.com



Tenpoint Vapor Crossbow

The Vapor is Tenpoint's most compact crossbow to date. Its parallel limb assembly is only 12.6 inches, axle to axle, when cocked, making it ideal for tight treestands and other compact locations. This is the ultimate crossbow for traveling through thick brush or vegetation as you eye your prey. It won't get snagged on low-hanging branches or small saplings as larger units could. Its lightweight, carbon-fiber barrel allows the user to carry the crossbow easily during long hunting days. The Vapor package includes the crossbow, Rangemaster Pro Scope, cocking aid, three-arrow quiver, six carbon-fiber bolts, a noise-dampening kit and a deluxe, soft carrying bag to keep all your supplies ready to go when the "hunting bug" hits you.

Specifications

- 360 fps
- Carbon-fiber barrel
- Short axle-to-axle length
- Hybrid eccentric cams
- Deluxe soft case
- Compact design for easy carrying

Tenpoint Lady Shadow

There's nothing "girlie" about the capabilities of the Lady Shadow crossbow. Shooting at an amazing 350 fps and with a draw weight of 180 pounds, this crossbow combines power and beauty in one impressive package. The Lady Shadow is one of the lightest crossbows produced and now includes features designed for the ladies. The exterior is decorated with purple-and-black MuddyGirl camo, and the ACUdraw system allows for easier cocking between shots. The accessory package includes a 3X Pro-View scope, your choice of ACUdraw cocking mechanisms, a detachable quiver, side-mount bracket, three 100-grain aluminum arrows, instructional DVD and Tenpoint window sticker to proudly display your loyalty to this amazing brand of hunting equipment.

Specifications

- 350 fps
- Extremely lightweight
- ACUdraw cocking mechanism
- Detachable three-arrow quiver
- Ambidextrous side-mounted quiver bracket
- Instructional DVD



\$1,119

www.tenpointcrossbows.com



Horton Legend Ultra Lite Crossbow

An ultra-lightweight crossbow intended to drop big game with relative ease? That's what the Legend not only claims but also actually accomplishes when "out in the field." The Ultra Lite Crossbow package includes everything you need to start your hunt: 4x32 Multi-Line scope, optional ACUdraw cocking mechanism, side-mount bracket, three carbon arrows and a three-arrow Horton quiver. The cheek rest and butt plate are both adjustable to ensure perfect eye level alignment and length of pull. Thirteen-inch HL Limbs provide the power behind this weapon, projecting a carbon arrow at 330 fps toward unsuspecting prey. You will never again be disappointed during a hunt when packing this powerful compound crossbow.

Specifications

- 330 fps
- Adjustable stock
- Adjustable butt plate
- Lightweight, carbon-injected polymer barrel
- Optional cocking mechanisms
- Three carbon arrows

\$919

www.hortoncrossbows.com

Horton Storm Crossbow RDX

Reverse-draw technology is at the heart of the Horton Storm RDX compact crossbow. Measuring only 10 inches across when cocked, this hunter's dream is perfect for any tight space or uncomfortable position you might find yourself in while waiting for unsuspecting game. There is no loss or reduction of power with this unique design. Four hundred-grain carbon arrows fly at their targets at an incredible 370 fps.

The cheek rest and butt plate are fully adjustable, providing the most precise and most comfortable shot available. Once you try reverse-draw technology, you might never go back to traditional crossbows again.

Specifications

- 370 fps
- Incredibly compact style
- 10-inches, axle to axle, when cocked
- RDX technology
- Sleek design
- Weight: 7.7 pounds



\$1,219

www.hortoncrossbows.com

Horton Crossbow Case

Secure your valuable crossbow while traveling or trekking through the woods. This soft, jet-black case holds both traditional and reverse-draw crossbows. An easy-access zipper allows for quick storage or removal of your weapon from the bag. The attached large accessory pocket provides room for all your valuable accessories, including arrows, quiver and replacement parts or strings. Don't let the elements or daily wear and tear shorten the life span of your crossbow—protect it for years of to come.

Specifications

- Soft, heavy-duty material
- Holds forward- or reverse-draw crossbows
- Jet-black color
- Sturdy side panels
- Multiple compartments
- Removable shoulder strap

\$89

www.hortoncrossbows.com



DOUBLE DOWN & SAVE BIG



It doesn't get better than this. Get 2 Great Magazines at 1 Great Price. Combine 1 Yr subscription to **Gun World** along with 1 Yr subscription to **World of Firepower** and save **69% off** the cover price

DON'T LET THIS OFFER EXPIRE. ACT NOW!

Fill out the order form below and mail it with your payment information to
Engaged Media Inc., Lockbox # 70253, Philadelphia, PA 19176-9883

JUST
FILL IT ► CUT IT ► SEND IT

YES!!! sign me up for a subscription to Gun World and World of Firepower for \$34.95 only

That is a total of 18 issues for a total savings of \$78.87 off the cover price

Method of Payment ☐ Check enclosed ☐ Credit Card ☐ Money Order ☐ Bill me Later

Payment through credit card ☐ Visa ☐ MC ☐ AMEX ☐ Discover Name on credit card _____

Credit card number

Expiration date ____/____/____

Subscriber name First _____ MI _____ Last _____

Address _____

City _____ State _____

Phone _____

Email _____

Signature _____ Date ____/____/____

SCAN QR CODE



Alternatively, Log on to www.engagedmediamags.com/combo_gwfp and use Promo code **A853K4F3**
or call our toll free no **800-764-6278** to order your subscription. Allow 6 to 8 weeks for delivery of first issue.
Outside US, add \$48 per year for postage. Pay in US funds only.

Cobra Aluminum Crossbow Bolts—6 inches

Simple, inexpensive handheld crossbows are perfect for honing your skills or just letting off steam with some old-fashioned target practice. However, any crossbow is basically worthless without its ammo. These inexpensive Cobra bolts are partially constructed of aluminum, making them tough and durable, even after repeated use. The brightly painted, blue-and-yellow design allows for easy retrieval in the woods or tall grass. Buy several packs, and enjoy hours of shooting fun.

Specifications

- Use with handheld crossbows
- Multi-use bolts
- Sturdy construction
- Durable metal tips
- Convenient 10 pack
- Bright blue-and-yellow design

\$10.99

www.pse-archery.com



Mission MXB-Sniper Lite

Extremely balanced and accurate, the MXB-Sniper Lite is one of the best "quality vs. price" crossbows on the market today. This weapon features an ultra-smooth draw cycle that allows for easy cocking and an innovative, user-friendly system that produces consistent nock-splitting accuracy. Its adjustable butt and sleek design exemplify its position as a viable sniper weapon. The crossbow is finished in a two-tone concealment color that makes the crossbow virtually disappear in the darkness. The MXB-Sniper Lite weighs in at fewer than 6 pounds for easy transporting and less user fatigue during continuous use.

Specifications

- 310 fps
- Easy to cock
- Unparalleled balance and accuracy
- User-friendly system
- Weighs fewer than 6 pounds
- Sleek, black finish

\$599

www.missionarchery.com



DOUBLE DOWN & SAVE BIG



It doesn't get better than this. Get 2 Great Magazines at 1 Great Price. Combine 1 Yr subscription to **American Survival Guide** along with 1 Yr subscription to **Bow & Arrow Hunting** and save **71% off** the cover price
DON'T LET THIS OFFER EXPIRE. ACT NOW!

Fill out the order form below and mail it with your payment information to
Engaged Media Inc., Lockbox # 70253, Philadelphia, PA 19176-9883

JUST
FILL IT ► CUT IT ► SEND IT

YES!!! sign me up for a subscription to American Survival Guide and Bow & Arrow Hunting for \$39.95 only

That is a total of 18 issues for a total savings of \$97.87 off the cover price

Method of Payment ☐ Check enclosed ☐ Credit Card ☐ Money Order ☐ Bill me Later

Payment through credit card ☐ Visa ☐ MC ☐ AMEX ☐ Discover Name on credit card _____

Credit card number

Expiration date ____/____/____

Subscriber name First _____ MI _____ Last _____

Address _____

City _____ State _____

Phone _____

Email _____

Signature _____ Date ____/____/____

SCAN QR CODE



Alternatively, Log on to www.engagedmediamags.com/combo_asgbah and use Promo code **A854V3M3**
or call our toll free no **800-764-6278** to order your subscription. Allow 6 to 8 weeks for delivery of first issue.
Outside US, add \$59 per year for postage. Pay in US funds only.

One Year After

by William R. Forstchen

When the country has been reduced to a failed state, what lengths do you go to in order to restore the rule of law?

A year has passed since we left Colonel John Matherson and the residents of Black Mountain, North Carolina, in William R. Forstchen's novel, *One Second After*.

An EMP attack had brought down the electrical grid in the United States, and most cars and electronic equipment were left permanently inoperable. The country instantly returned to a 19th-century level of technology. Ninety percent of the population died off from starvation, disease or violence.

The West Coast and the Southwest have been occupied by China and Mexico, and America is struggling to recover. The government, consisting largely of politicians and their staffers who survived the collapse (in the relative comfort of well-stocked and protected safe zones), has begun trying to regain control. To this end, survivors have been notified of the reinstitution of the draft and the creation of the Army of National Recovery.

One Year After picks up right where the first book ended. Matherson and his neighbors have largely worked out the day-to-day necessities of surviving in their new world. The "new normal" now includes ration cards, party line phones, news from the bulletin board at the post office and a local militia to protect against raiders.

Author Forstchen paints a picture of a population that largely resembles the black-and-white photos of pioneers—weatherworn, beaten down by daily life and one meal away from starvation. Ask a member of the "Greatest Generation" what it was like when having meat with your meal might have been a once-

a-week luxury. There's a reason that Herbert Hoover's 1928 presidential campaign ran on the promise of "a chicken in every pot."

Perhaps the most jarring scene in the book describes the reality of 19th-century dentistry. Imagine returning to a time when Novocain doesn't exist; when, if you're lucky, the local chemist has recreated ether or nitrous oxide. It's a time when an ignored sore tooth could easily kill you.

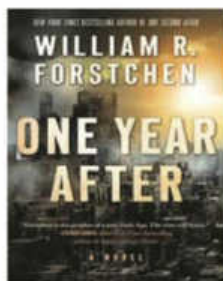
As in *One Second After*, *One Year After* gives equal time to the moral issues involved in surviving after a societal collapse. Forstchen is just as adept at presenting those moral dilemmas inherent in trying to restore society as he is in describing the unanticipated effects of losing our modern conveniences.

If the greatest enemies in the first book are anarchy and the basic struggle to survive, the primary conflict in *One Year After* is about doing what is morally right—making this sequel far more of a political novel than the first book.

When the country has been reduced to a failed state, what lengths do you go to in order to restore the rule of law? Can it be done, and will the ends justify the means—if those means result in a country that is unrecognizable to Americans?

Are you willing to just follow orders, or will you stand up and fight for what you believe is right, regardless of the cost?

Those are some of the questions asked—and answered—in a world gone wrong, and some familiar characters take us along for the ride. **AAA**



Where to Buy It:
One Year After
 William R. Forstchen
www.amazon.com
 \$15.59

AD INDEX

JANUARY 2016

ADVERTISER	PAGE
Battlbox LLC	65
Emergency Zone	43
I.O. Inc	7
Jantz Supply	87, 101
Kershaw Knives	132
Lansky Sharpeners	109
LifeStraw	67
Major Surplus & Survival	10-11, 61
MTM Special Opps	3
Secure Medical	117
Tactical Night Vision Company	17
Taurus International	2
TOPS Knives	131
Tormach LLC	117
Yankee Hill Machine Co	45

The Advertiser Index is provided as a service to American Survival Guide readers.
American Survival Guide is not responsible for omissions or typographical errors on names or page numbers.

AMERICAN
SURVIVAL
GUIDE

Find us on



Be prepared when
disaster strikes.

www.facebook.com/americansurvivalguidemagazine



Get One Issue FREE!

+ SAVE 80% on Annual Subscription

SUBSCRIBE NOW

To Your Favorite American Survival Guide Digital Magazine

Just log on to

ENGAGEDMEDIAMAGS.COM/EEM-2043

OR

SCAN QR CODE BELOW



***12 issues for only \$21.99**

Available on app stores below



Online
(Win/Mac)

Single issues are also available at \$4.99.

For questions on downloading the magazine apps contact 800-764-6278.

For a full listing of our digital titles, visit www.engagedmediamags.com/digital today!

The Time to Act Is Now

Zombies aren't real.

I know; I know. You're thinking, "They are, too!" However, there has never actually been a single (real) report of zombie-ism in human history. Zombies are fantastical metaphors in which we wrap our worries and fears to shroud our uncertainty about what could take place down the road. Our minds begin to spin, and we opine about the probabilities of super-volcanic eruptions, a mutating virus that wipes out 97 percent of the country's population or even a government that turns on its own people.

Each of those things is at least somewhat possible but probably not likely in our lifetimes ... knock on wood.

Right now, some of the biggest threats our nation faces are our economic system, the manipulation of commodity prices, a skyrocketing national debt and the systematic approach by banks to do away with cash.

Most people aren't aware that the federal government has suspended debt issuance for the U.S. government. Additionally, since March 13, 2015, we have been showing \$118,112,975,000,000 as the national debt every day at close of business. We haven't stopped borrowing; we just say that our debt isn't increasing because we are so close to the debt ceiling. Wouldn't it be nice to go out and borrow money every day but just write down on a piece of paper that your debt hasn't increased?

Wonder what the debt *really* is? The American dollar is becoming weaker and weaker. Experts will tell you the dollar is quite strong, but that's only relative to other countries' crumbling economies. It's time for people to figure out a real and tangible way to preserve their wealth, especially because banks are so actively trying to avoid holding cash. What they are pushing us toward is a digital currency that can be manipulated any number of ways because it's not backed by anything of intrinsic value.

Some people buy gold and silver to protect their wealth. Most people can't afford that kind of preparation, but there are other items that will hold their value.

Buy canned food now, and use it two years from now at today's prices. Stock up on medical and hygiene items, and do the same thing. The longer you keep cash in your pocket or in your accounts, the less it is worth.

Credit Suisse just issued its annual *Global Wealth Report*. One observation made was that if a person had no debt and \$10 in their pocket, they'd be better off than 25

percent of the American population. That's truly sad and only reinforces that we are just inches away from the economy bottoming out and affecting this nation as nothing else ever has before.

It's okay to have fun and think about all the scenarios we imagine will happen, but we have to make sure we keep our eyes on the ball and understand what is real—and what is truly undermining us more and more with each passing day.

Stock up on what you can always use and what you can always trade. Even if nothing happens, you'll end up using it sooner or later. If you have the means, put a percentage of your net income into something that's inherently valuable, such as silver and gold. Both of these precious metals have been used as currency for thousands of years. (Metals such as palladium and platinum are also quite valuable but are not as well understood or recognized as silver and gold.)

The main point here is, *Do something*. Don't get caught up in the fantastic. Be aware of what's happening around you, and do something about it now so you can be prepared with your own version of wealth—no matter what comes your way. ■■■



PHOTO BY THINKSTOCK

READY FOR YOUR NEXT **ADVENTURE?** *LET US HELP*

With over 250 models
available, there is a knife
for you no matter what that
adventure might be.

www.topsknives.com

DEALER INQUIRIES **WELCOME**
CALL FOR A **FREE CATALOG**



101%
Made in the
USA



GO BOLD

ZTKNIVES.COM



Boldness makes its own choices.

Boldness embraces the new. It refuses to fear what the world may say. Or think. Or dish out.

Boldness is resourceful, practical, and strong. Boldness can be built like a tank. On the other hand, boldness can have the style of a gentleman.

Boldness values intense craftsmanship. It values advanced technology. It knows that form matters, but that function matters more.

Boldness has zero tolerance for anything less than the very best.



0450



0808



0900